Investigating Play and Learning in the Ghanaian Early Years Classroom. A Mixed Methods Study

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ABSTRACT

This study examined the meaning and role of play in Ghanaian early years settings, focusing on the beliefs of stakeholders, the expression of play in the Ghanaian early years curriculum and classroom practices. Framed within a sociocultural theory of play, this study followed an explanatory sequential mixed methods design, which involved the initial collection of quantitative data followed by a qualitative data. In the initial quantitative phase, a survey scale, referred to as the Early Years Play and Learning Perception Scale (EYPLPS), was developed and used to collect data from 292 stakeholders (147 parents, 105 teachers and 40 head teachers). A preliminary comparison of the mean differences among the stakeholders using ANOVA indicated that the teachers and head teachers perceived play as a form of learning more favourably than the parents. This difference was further explored using cluster analysis to determine whether the stakeholders' education status might be a factor in explaining the group means differences. The cluster analyses revealed five distinct clusters characterized by participants' status and level of education – highly educated parents, teachers and head teachers; moderate educated teachers and low educated parents. The five clusters were compared on the play-learning belief score using ANOVA. The results revealed that the scale score was statistically significantly lower for low-educated parents compared to high-educated teachers, high-educated head teachers and high-educated parents, indicating low-educated parents were less likely to associate play and learning than these other groups. There was, however, no statistical significant difference between the scale scores of low-educated parents and moderate-educated teachers. The results suggest the significance accorded play depends on the stakeholder's level of education, with stakeholders reporting higher levels of education endorsing play as an opportunity for learning and acquiring social skills as well as academic skills.

With the EYPLPS scores providing the basis for sample selection, four early years settings were selected as cases for in-depth qualitative inquiry using interviews, observations, photographs and analysis of curriculum. An analysis of the curriculum revealed that the curriculum does not emphasise play-based learning. It does, however, support the idea of children learning by doing. Therefore, the curriculum promotes activities that involve children's participation as an effective approach to teaching and learning. Interviews revealed that play first of all resonated with fun and happiness in stakeholders' perceptions. The majority of those interviewed perceived play as a way of maintaining children's interest in lessons, and as a break from learning. Classroom practices that emphasise teacher-directed academic activities and the stakeholders' unanimous appreciation of the use of rhyme and song in classrooms illustrate this point. Rhymes and songs were used at the beginning of lessons and also as an interlude when children appeared tired and bored during lessons. Other examples of how stakeholders perceived play included play as storytelling, a way of keeping children occupied, as a recess activity and as a form of learning. The findings are discussed from a sociocultural perspective, drawing a picture of the cultural meanings attributed to the model of childhood, play and learning in Ghana.

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DEDICATION

I dedicate this work to my husband, Hilary Konadu Awuah, my parents, siblings – Delali Avornyo, Foster Avornyo, Richard Avornyo and Wilson Avornyo, and other family members who have always believed in me and been by my side.

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CHAPTER ONE

INTRODUCTION

The notion of play as an important component in children's daily lives and in early years education is widely recognised. Its significance is evident in research that suggests play contains all the developmental tendencies and is a major source of development. Researchers investigating children's development and learning (Vygotsky, 1966; Piaget, 1952; Sutton-Smith, 1967; Bruner, 1972; Sylva, Melhuish, Sammons, Siraj-Blatchford & Taggart, 2010) indicate there is a relationship between children's play and their cognitive development. Other researchers have highlighted the relationship between play and children's emotional development (Freud, 1920; Singer, Golinkoff & Hirsh-Pasek, 2006; Meyers & Berk, 2014), development of social skills (Smith & Pellegrini 2008; De Vries, 2006) and as a foundation for later learning (Christie & Roskos 2006; Wager & Parks 2014; Seo & Ginsburg, 2004).

Given this evidence, play researchers and theorists expound a powerful argument for play as a vehicle for children's learning. This argument is further strengthened by studies that have investigated the impact of early years experiences on children's later development. Findings from these studies echo the importance of play. For example, the Effective Preschool and Primary Education (EPPE) UK project (Sylva et al, 2010) examined the effects of early childhood education on child development using a mixed methods design (both quantitative and qualitative data). With a sample of over 3000 children selected from varied preschool settings across the UK, the study demonstrated that although preschool education is important, compared to staying at home, some preschool settings are more effective for positive child outcomes than others. They found that preschool settings that focus on teacher-initiated and freely chosen play activities provided important opportunities for children's cognitive and social/behavioural development. While it could be argued that the findings and conclusion are applicable to a particular social and cultural context and may not be generalised to other contexts, research from an African context lends support to this conclusion. The study, which was carried out in

three East African countries (Uganda, Kenya and Zanzibar) to evaluate the impact of an intervention programme on children's cognitive development (Mwaura, Sylva, & Malmberg, 2008), was based on a pre-test/post-test quasi-experimental design with an intervention group (children enrolled in Madrasa preschool) and two comparison groups (children enrolled in non-Madrasa preschool and children with on preschool). The Madrasa intervention is an early childhood education programme that recognises children as active explorers who learn through active exploration and manipulation of objects and therefore emphasises the importance of play. With a sample of 423 children from 47 preschools across the three countries, the researchers found that although attending preschool had a more positive impact on children's cognitive development than being at home, those children who enrolled in the Madrasa preschool achieved significantly higher scores overall, leading them to conclude that type of preschool experiences are important in nurturing cognitive development. It is possible that the introduction of a new programme could have influenced children's learning, however, the fact that the programme had been implemented for a period of 25 years before its evaluation and yielded similar results across different contexts makes the findings very compelling.

These studies give evidence of the importance of play in young children's education by suggesting that playful opportunities have stronger impacts on children's development, but the idea of *learning through play* can be somewhat challenging as it assumes play is a universally leading activity and that children should be given time, space and resources to facilitate their engagement in play. But do all societies support children being given playful opportunities? Is play constructed as children's leading activity in all cultures, particularly in relation to learning at the early years? How has play been understood and constructed within different cultural communities, particularly in relation to learning at the early years? These questions are taken up by examining how play is conceptualized within a section of the Ghanaian community. In particular, it assessed the representation of play in the national early years curriculum, while also examining stakeholders' (parents, teachers and head teachers) conception of play and how play has been epitomized in classroom practice. The proposition put forward is that play is a

culturally constructed activity that is valued differently across communities, understood and supported differently by different stakeholders in the context of early years education. Concepts from the sociocultural theory of play are used for exploring how play has been represented and for providing a cultural theorization of play.

Before turning to the details of this study, it is necessary to provide background by first outlining the context of early years education and play in Ghana.

1.1 Early years education policy in Ghana

Early years education in Ghana comprises care and education for children from birth to the age of five. Early years education gained grounds as part of the formal education system in 2002 as a result of the government's education reform policy to integrate early years into the country's system of compulsory basic education. Before this, early years education was patchy, with services provided by proprietary schools. Consequently, early years activities lacked uniformity, with most of these private centres drawing on aspects of the primary curriculum. There was no standard educational framework or guideline for early years teaching and learning until its inclusion into the formal system. The advent of early years education gave rise to the development of a curricular framework that is supposed to guide the activities of all centres. This curricular framework is, however, limited to children aged four and five.

There are three main types of early years provision in Ghana: crèche and day care centres, which provide care for children from birth to two years; nurseries, which provide care and education to children between the ages of two and three; and kindergartens, which provide education to children aged four and five. It is important to note that this study focused on care and education for three-five years old (that is, nursery and kindergarten), herein referred to as early years settings. Nurseries and kindergartens in Ghana can be either public or private settings usually offering full-day sessions, five days per week. Public settings are government-funded whilst private settings are individually owned and on a fee-paying basis, with a profit-

making goal. Both public and private early years settings are required to register with the Ministry of Education and come under the supervision of the ministry.

Early years settings are spread out across the ten regions of Ghana (both rural and urban areas). In 2003/2004 school year, the number of early years settings recorded across the country was 7,009. By 2014, the number of early years settings across the country had almost tripled, reaching a total of 25,844. Similarly, enrolment rates increased rapidly given the government's agenda to improve equitable access to early years education (Ministry of Education, 2010) and the quest to achieve Millennium Developmental Goals (MDG). In 2002, 346,919 children, representing 21% gross enrolment ratio (GER), were enrolled. By 2014, the gross enrolment ratio increased markedly to 140%, with a total of 1,983,344 children being enrolled.

While such an increase in access and enrolment is encouraging, the majority of early years teachers are untrained, leaving them without theoretical knowledge about early years development and learning. Early years teacher training ranges from obtaining a Bachelors or Masters degree in early childhood education, to acquiring a 2-year post-high school diploma in basic education, to in-service training. The head teacher would typically be a qualified teacher with or without an early years background. The 2014 education statistical report shows that at the end of 2013/2014 academic year there were 12,664 nursery teachers (4.5% public; 95.5% private (Ministry of Education, 2014). The proportion of kindergarten teachers in the public and private sectors is reversed, 50,575 kindergarten teachers (72.6% public; 27.4% private). Out of these figures, the proportion of trained nursery teachers was approximately 33.7% in the public sector and 4.2% in the private sector. The proportion of trained public and private kindergarten teachers was approximately 55% and 5%, respectively (Ministry of Education, 2014). The untrained teachers have only primary or high school education (Wolf, Lawrence Aber, & Behrman, 2018b). Given these differences, this study aimed to sample a range of teachers across public and private early years settings.

Although the educational report shows public schools have highly educated teachers compared to private schools, research by Wolf, Lawrence Aber, & Behrman (2018a) shows that highly educated and wealthier parents are more likely to enrol their children in private schools because private schools are newer, have smaller class sizes and teach exclusively in English rather than a mother tongue, despite the national policy requirement that nursery and kindergarten teachers teach mainly in a mother tongue.

The Ghana Education Service (GES) has stated its support for a play-based learning in its education situational report. In defining the pedagogy for kindergarten education, the report opens with:

> Ghanaian children at play often demonstrate enormous energy, a sense of joy and well-being and an enviable set of skills and attributes. They are curious, creative and resourceful explorers inventing games by collaborating with their friends and making toys from anything they find. They concentrate for lengthy periods of time when interested and actively engaged. It is such qualities that should be nurtured and developed in an effective kindergarten education, which includes but goes far beyond the teaching of colour, shapes, numbers and letters (Ghana Education Service, 2012, p. 10).

However, this commitment is counteracted by parental demands for rigorous teacher-driven academic activities. Parents tend to assess early years settings based on whether they do 'serious learning', such as rote repetition of letters and numbers (Kabay, Wolf and Yoshikawa, 2017; Wolf, Aber and Behrman, 2018b). As a result, early years education in both public and private settings remains rooted in rote teaching (GES, 2012).

All public and private early years settings are required to follow the Ghana Education Service curriculum, which proposes a child-centerd and play-based approach to teaching and learning. But, does the curriculum align with GES commitment to prioritise playful approaches to teaching and learning? How is play framed in the curriculum and do current teaching and learning practices reflect the existing curricula? This study aimed to uncover how play has been represented in the curriculum and to what extent it is fulfilled.

1.2 Culture and perceptions of learning and play in Ghana

Numerous aspects of the Ghanaian culture, for example, food, clothes and religion, has changed and are still changing. However one of its enduring features is the importance placed on children's academic achievement. Being educated is considered a very important way of raising the status of one's family, and this image of success is instilled in children at an early age (Kabay, Wolf, & Yoshikawa, 2017). Therefore, parents who can afford school-related materials for their children buy them and help them to acquire early academic skills, such as letters and numbers recognition, as a way of getting them ready for school (Wolf et al., 2018a). Parents believe their children should learn academic concepts and emphasise the importance of early years education being formal education with a focus on academics (Kabay et al., 2017). These parental academic concerns coupled with the hierarchical nature of the Ghanaian culture (Kabay et al., 2017) makes teaching that leads to rote repetition an integral part of the process of early years education. This form of teaching leads to obvious measurable "product", which is interpreted as learning.

Traditionally, play features in the form of different types of indigenous games such as "ampe"[1] and "pilolo"[2], which are very social in nature. The social nature of these games makes them very interacting and fun. Aside the social skills, these games possibly offer opportunities to learning, for example, counting. But, the word play as used in different Ghanaian languages, for example, "*agoro"* (Akan), "*epli* "(Ewe) and "*shwemo"* (Ga), has different meanings. Play can represent fun, jokes, and lack of seriousness. The meaning attributed to play therefore depends on the context in which it is used. These cultural meanings of play are very relevant in understanding what is going on with play in the context of early years education in Ghana. In particular, they are relevant in understanding how play has been conceptualised in the curriculum and how early years stakeholders (parents, teachers and head teachers) conceptualise play and classroom

[1] Ampe is a game that involves clapping, jumping and coordination of feet. Before the start of the game, each player chooses what counts as a win (throwing the same feet at the same time or throwing alternate feet at the same time. When the two players jump and thrust the same feet forward, then the one chose that criterion wins and vice-versa. It is mostly played by females and can be played by two or more people.

[2] Pilolo is a game that involves the use of small sticks (about ten), which are hidden for the players to find. The one who finds the highest number of the sticks is the winner of that session of the game and therefore takes the turn to hide the sticks. It normally involves more than two players.

practices. This understanding will be informative for further development of teaching and learning programmes for early years education in Ghana, which leads on to what prompted an investigation of the role of play in early classrooms.

1.3 What Motivated this Study?

The desire and passion to understand the role of play in early years classrooms in Ghana began when I undertook my undergraduate student placement programme in 2009 at a preschool and wrote about how developmental psychology theories were being used in classroom practice. My report showed that developmentally appropriate practices, such as play that reflect developmental theories were largely unavailable in the nursery and kindergarten classrooms. I observed 3 to 5 year olds spend most of their time being taught, being forced to memorise concepts and being tested using teacher-made tests. I completed the programme asking myself why the pressure at such a very young age and I remembered their experiences were not different from what I had as a young child. After my undergraduate, I took up a teaching role and while a teacher I made similar observations. With these observations in mind, when I had the opportunity to do my masters degree, I decided to conduct an exploratory study to find out why play, which is considered a developmentally appropriate way of learning in the early years, seemed absent in our early years classrooms.

My MPhil study examined the perceptions of learning through play among four early years' teachers from English and Ghanaian settings. The study followed a multiple case-study design with a qualitative format of interview and analysis of related documents. With each teacher, an interview that was focused on learning through play was conducted. Differences were documented in the extent to which the teachers regard play as a means of learning and factors perceived as strongholds or barriers to learning through play were identified. Both teachers in England were in agreement that play is an important opportunity for learning. However, both teachers in Ghana shared divergent views regarding the role of play in children's learning, with one holding a value of play as a form of learning and the other perceiving play as relief from

boredom and stress. Prompted by these findings, I questioned whether or not variations between the two teachers would also be reflected among other teachers as well as parents, and head teachers. Furthermore, the teacher who held a learning value of play, identified pressure from parents and school management as a barrier to the use of play in the classroom. The question that emerged was whether play is a welcomed activity in the Ghanaian early years classroom and how has play been constructed by the different stakeholders (parents, teachers and head teachers). This current study therefore builds on and extends my previous work in terms of the people and the numbers involved as well as the methods adopted, and this leads on to the purpose of the study.

1.4 Purpose of the study

The overall aim of this study was to examine the role and meaning of play in early years settings in Ghana. To achieve this aim, parents, teachers and head teachers' beliefs about play as a form of learning were assessed. Further, the curriculum was examined to determine the representation of play and classroom practices were examined to determine how play was used in the classroom and the extent to which teachers' beliefs matched practice. The study was carried out in Ghana, and an explanatory mixed methods design was employed. It involved collecting qualitative data after a quantitative phase to follow up on the quantitative data in details. In the initial quantitative phase of the study, survey data was collected from parents, teachers and head teachers to obtain scores that helped select samples for the qualitative phase. In the qualitative phase, multiple sources of data (including interviews, observation and document analysis) were used in a multiple case study to explore parents', teachers', head teachers' perceptions of play, to examine classroom practices and also analyse the curriculum. The qualitative follow up helped incorporate participants' voices and provide insights about the curriculum and classroom practices.

To understand play and its relationship to children's learning and development, it was essential to explore theoretical and empirical grounds for play. It was necessary to examine existing

literature on the role of play in learning, assess adult beliefs of what play is. Thus, a thorough review of relevant literature and the analysis of empirical data were adopted to facilitate the study as detailed in the next chapter.

Specifically, the objectives of this study are to:

i. Evaluate literature on the role of play in learning, research on stakeholders' beliefs of play and its role in children's learning

ii. Develop a theoretical framework that will serve as the backdrop for the study

iii. Examine play and learning in Ghanaian early years classrooms with respect to stakeholders' (parents, teachers, head teachers) beliefs, classroom practices and the expression of play in the curriculum

It was anticipated that achieving these objectives, particularly iii, would make essential contributions to the study of play by revealing its status in Ghanaian early years education, as well as adults' perceptions regarding what it is. Finding out what stakeholders regard it to be will help in determining how play is understood, how much play is encouraged and supported in the early years classroom. This is because beliefs about play and its expression in the curriculum will determine its place in the learning process and subsequently influence classroom experiences children are exposed to. The study's significance therefore lies in the premise that once stakeholders' beliefs are sought and classroom practices observed and understood, applicable solutions and recommendations can appropriately be made. Moreover, findings from this study provides rich insights about play from the Ghanaian perspective and therefore represent a unique contribution to the literature on children's play as well as set the platform for further studies regarding play in Ghana. The ensuing chapter provides the context of what exits in the literature regarding play, as relevant to this study.

1.5 Organisation and structure of the thesis

This thesis consists of nine chapters. Chapter 1 introduces the background information that in turn leads to the objectives of the study. Chapter 2 is focused on a review of literature relevant to this study. It examines two groups of theoretical perspectives on play and discusses five different types of children's play and research claims that suggest their role in children's learning. It also considers research on stakeholders' perceptions of play across different social and cultural contexts. Chapter 3 concentrates on the theoretical framework for the study. It begins by considering the problem of defining play, which provides the starting point for discussing the sociocultural perspective of play as the theoretical frame for understanding the study. The proposition put forward is that although play may be a universal activity for children, the forms that play takes and the status accorded it is not. How a particular community conceives the role of play in learning is a function of how that community conceives childhood and how children develop, which has significant implications for children's access to play and the role of the adult in supporting play. Chapter 4 presents the research methodology. It introduces the research design and explains the choice of a mixed methods design as the appropriate methodology. It further discusses a breakdown of the two components of the sequential mixed methods design – a research design that involves the initial collection of quantitative data and a follow-up collection of qualitative data. However, this study has a preparatory phase (before the quantitative phase), which was used for the development and validation of the survey scale used for the collection of data during the quantitative phase. For each of the methodological component (quantitative and qualitative phases), the rationale behind the choice, the method used and samples are discussed. In Chapter 5, the preparatory phase of the study is presented. It introduces the background to developing and constructing the scale as well as the collection of preliminary data from stakeholders in Ghana to validate the survey scale. It further considers the process of the scale validation and how items from the scale were selected to form the revised scale, which was used for the collection of the data during the quantitative phase. Chapter 6 focuses on the implementation of the quantitative phase of the

study. The chapter provides the procedure for data collection, data analysis, results as well as the discussion. Key findings highlight the important role of education in shaping stakeholders' perceptions about the role of play in children's learning. Like Chapter 6, Chapter 7 focuses on the implementation of the qualitative phase of the study. It presents the data collection procedure, process of data analysis, findings and discussion. The examined perspectives of stakeholders' play beliefs and classroom practices underscores the social and cultural conceptualisation of play. Chapter 8 provides an overall discussion of the study. The Ghanaian images of children and how they develop and learn as well as how play is culturally perceived are some of the notions discussed in depth in this chapter. These notions are shown to impact children's experiences of, and opportunities, for play in the classroom. Finally, Chapter 9 draws the thesis to a close, drawing attention to the fact that play in the early years classroom in Ghana shows no resemblance to an idealised playful classroom, highlighting the significance of the sociocultural perspective of play.

CHAPTER TWO

LITERATURE REVIEW

Before turning to the theoretical framework that guides this research, it is necessary to provide background information about the different theories that have been developed to explain children's play activities, the different types of children's play and how they relate to children's learning as well as research that have examined adults' beliefs about play in relation to children's learning. This chapter of the thesis addresses these with a review of relevant literature.

2.1 Theoretical perspectives on play and learning

Play, in its different forms, is a ubiquitous phenomenon seen in animal species, children and adults (Pellegrini, 2009). Though it has existed as part of human lives since early times, theories regarding its definition, purpose, and value have been diverse. Different theorists in various disciplines, such as developmental psychology, cross-cultural psychology, and early childhood education, have described its nature and purposes differently. The varied image of its nature and role highlights its complexity and multidimensionality. This, according to Goncu and Gaskins (2007), has made it difficult to "integrate its multiple perspectives" (p. 4). Play theory is, therefore, wide-ranging, involving those that have attempted to define the phenomenon and describing its purposes narrowly, through to those that have focused on examining its instrumental role in fostering children's learning. Despite the diversity of explanations provided by these theories, a basic assumption is that play is a unique and ubiquitous activity in humans with significant developmental and learning outcomes. Thus, different lines of theories come together as being relevant for unpacking the meaning of this assumption. However, as a form of simplification, these theories have been classified under two groups: classical and modern theories of play.

2.1.1 Classical theories of play

Early theorists, generally referred to as classical theorists, from the late nineteenth and early twentieth century, were interested in the meaning of play, and provided some of the definitions of play and hypothesised about its purpose. These theorists adopted an evolutionary approach to the study of play, extending their observations from animals to human behaviour. For instance, Spencer (1890) and Schiller (1875) theorised that play was a way of aimlessly expending exuberant energy. Their surplus energy theory explained that as a result of man's advanced development, they have more energy than is needed in satisfying their immediate needs and some of the energy occasionally remain unused for considerable periods, and thus results in the "aimless" activities labelled *play*. So, play was undertaken due to excess energy. In contrast, the recreation (Lazarus, 1883) or relaxation (Patrick, 1916) theory explains play as an activity undertaken for the pleasure it affords. Play assumes the role of restoring energy consumed in work. At a glance the recreation or relaxation theory appears to be entirely different from the surplus energy theory. However, it appears to be an add-on to the Schiller-Spencer idea. So the same act, play, on one hand allows excess energy to be disposed and on the other restores lost energy. Groos (1898, 1901), from his observation of animal's play, concluded that play was an instinctive practice behaviour. His pre-exercise theory explained that play was a way children practise skills needed for adult life. From his observation of animals' play fighting and the imitative behaviour of children, Groos (1898, 1901) provided an integrative view of play that ascribed greater significance to it, suggesting that play provided exercise and strengthened the skills needed for survival. Hall (1906) disagreed with Groos' theory of practice arguing that it was very incomplete and perverse because it saw play as a practice for future adult activities and he proposed that play was a way for children to work through the pursuits and customs of primitive and prehistoric man. His recapitulation theory explained that children through play enact the stages of human evolution and that play experiences enabled children to become more effective in adulthood.

2.1.2 Modern theories of play

Classical theories explanations of children's play behaviours have been criticised for lacking empirical support. However, they raised important issues about the characteristics of play, which has continued to be of theoretical interest. Building on these foundational explanations, recent theoretical positions generally referred to as modern theories, have tried to enhance our understanding of play and its role in children's learning. These theories indicate the importance of providing play experiences as a means of learning. For example, Bateson (1955) explored the paradoxical nature of play, stating that in play, children function within a 'play frame', in which behavioural messages do not carry the same messages as they would if employed outside the play frame. He theorised that children frame events through pretence and other meta-communicative signals[3]. Thus, when children engage in make-believe play, they learn to function simultaneously on two different levels, that is, in the scenes that they are acting out and still maintaining their existence in the real world. Bateson's work influenced psychological studies on communicative aspects of children's play. Garvey's (1977) study of play among preschool children is an example. She found that in pretend play, children are able to 'break frame' and correct each other's role-playing, resolve disagreements about appropriateness of behaviour. Thus, through pretend play, children are able to learn about the concept of the roles they assume, which shapes their acquisition of important social skills.

The arousal modulation theory by Berlyne (1960) and modified by Ellis (1973), which was developed based on studies with animals such as rats and monkeys, explained that play resulted from a drive to explore a new environment. They viewed play as a mechanism associated with exploration and the regulation of arousal motivation. Through play children engage in stimulation-reducing activities by exploring objects and becoming familiar with them (Berlyne, 1960) or seek stimulation by using objects and actions in new and unusual ways they can imagine (Ellis, 1973), which creates opportunities for developing creative skills. A novel object or environment causes arousal to increase to high levels. However, when the object or

[3] Signals which carry messages

environment loses its novelty, the level of stimulation falls below the optimal level, which causes boredom. The arousal modulation theory raises important issues regarding the design of classroom spaces for play and the quality of play provision in order to keep stimulation at the optimum level.

Psychoanalytic theories based on Freud's (1920) work and expanded by his daughter, Anna, have explained play as an activity that helps children deal with their emotional problems. In her work with children who have experienced traumatic events such as war and parental separation, she developed a play therapy to help children play out their emotions caused by traumatic events. Play is therefore cathartic in nature and acts as a safety valve for the expression of traumatic emotions. The therapeutic use of psychoanalytic theory, that is, play therapy has its place within contemporary early childhood education where play therapists encourage traumatised children to 'play out' the troubled feelings, providing a variety of materials for this purpose, for example, dolls, sand, and water (Brock, Dodds, Jarvis, & Olusoga, 2009).

Psychological theories, for example, Piaget (1952) and (Vygotsky, 1966), have also looked at the nature of play and its role in children's cognitive development. Their views differed as to whether play is the result of assimilation[4] being dissociated from accommodation[5] (Piaget) or as a creation of imaginary situations that are derived from real life tensions (Vygotsky). From his observation of his own children's play in infancy and his study of older boys marble game play, Piaget further classified play according to the level of the child's cognitive development and proposed three types of play activities; practice play, symbolic play and games with rules, roughly corresponding to his three stages of cognitive development – sensory-motor, pre-operational and concrete operational stages. However, he saw play as being a by-product of cognitive development. Vygotsky (1966), on the contrary, suggested that play helps children's cognitive development directly and contributes to their concept formation and language

[4] In assimilation, children learn new information from their experiences and environment and incorporate the new information into pre-existing ones. The new information is not just added to existing knowledge but it is modified to fit into one's cognitive structures.

[5] In the process of accommodation, children change their cognitive structures when there is a mismatch between new information and already existing ones.

learning. He recognised children's play as important and stressed the important role adults have in helping optimise children play. He further theorised that pretend play was an important part of play because it allowed children to learn self-regulation and to develop a variety of concepts. He argued that children's play is mediated by the use of signs and tools, which are created by societies and change with the form of society and their cultural development. Their form and use may therefore differ from one context to another. These important works have informed researchers and educators (e.g. Moyles, 1994; Wood, 2004) interested in early childhood education. Also, the influence of Vygotsky's theoretical ideas has become prominent more recently. His writings have been the inspiration for the interest generated in understanding the social and cultural contexts in which children and adults find themselves today (e.g. Bornstein, 2007; Goncu, Jain, & Tuermer, 2007; Rogoff, 2003) and have influenced current conceptualisation of children's play as an activity that is cultural constructed.

Further to the relationship between play and cognitive development, are the cognitive theories that emphasise how play promotes creativity and flexibility. Sutton-Smith's (1967) and Bruner's (1972) theories are concrete examples. They focused on play as a process that provides an excellent opportunity for children to try new combinations of behaviour and ideas. Both of them focused on the non-literal characteristics of play but differed slightly. Sutton-Smith (1967) emphasised the importance of substitution whereby children treat people or things 'as-if' they were something else, developing symbolic transformations. He argued that symbolic transformation that occurs in dramatic play has an effect on children's mental flexibility since they learn how to break free from 'established' ideas and to create their own. Through play, children are able to manipulate mental representations that differ from reality. Consequently, they develop creative thinking abilities. On the other hand, Bruner (1972) focused on the function of play in the development of behavioural flexibility. He suggested that in dramatic play, the consequences of a child's behaviour and actions are minimised. As a result, the child is able to create novel behavioural combinations and practices. This flexibility of play behaviour makes room for flexibility in the usage of tools that makes room for developing creative ideas.

As the theories discussed above indicate, play can serve different purposes. The diversity of explanations provided reveals the complex, multidimensional nature of play. This complex and varied nature of children's play can also be mirrored in the categorisations of children's play. Researchers have categorised children's play into many different ways based on their characteristics, developmental functions that each serves and the role of each in children's learning. The next section entails what exists in the literature on types of play and their role in children's development.

2.2. Types of play and their role in children's development and learning

Research on play often requires categorising it into types that typically differ based on the theoretical perspective espoused, as with the theoretical perspectives discussed earlier. However, in a widely used scheme emphasising play's social foundation, Parten (1932) focused on the categories of *solitary play* (independent play), *parallel play* (playing side by side often using the same materials, but not interacting with one another, *associative play* (playing separately from one another, but involving interaction) and *cooperative play* (playing together as a group). Also, in his review of various definitions of play, (Burghardt, 2011) identified many ways in which play has been categorised: rule-based, symbolic, make-believe, dramatic, small motor, large motor, risk-taking, arts play, language, rough and tumble and construction or object play. These categories reflect different forms of play in literature, however, some of the categories tend to overlap with each other and can therefore be simplified under common terms. For example, rough and tumble, small motor, large motor and arts play involve body movements. Consequently, they can be collectively referred to as physical play. Another example is dramatic and make-believe play, which involve fantasy. These can be referred to as pretend play. Thus, within the context of this thesis, five broad categories of play are discussed. In no particular order, these types are referred to as physical play; play with objects, symbolic play, pretend/socio-dramatic play, and games with rules. Almost all the types of play discussed can be solitary, parallel, associative or cooperative depending on the child's age and social setting.

2.2.1 Physical Play

Physical play, which is considered the earliest to evolve (Whitebread, 2012), has been divided into three subcategories: active exercise play, rough- and-tumble, and fine-motor play. Exercise play begins to emerge during the second year of life and peaks at ages 4 and 5 (Smith & Pellegrini, 2008). This type of play allows children to explore movements and ways to combine movements (Whitebread, 2012), and includes activities such as jumping, ball play, running, climbing and skipping. In a useful review of literature in animal play and motor training, Byers and Walker (1995) utilised developmental data from house mice, cats and rats, and evaluated the immediate or deferred benefits of exercise play for three aspects of motor training: endurance, strength, and skill and economy of movement. They suggest that exercise play may improve skill and economy of movement due to the effects of exercise on muscle fiber differentiation and on cerebellar synaptogenesis[6]. They conclude that exercise play in the juvenile period is a sensitive period for the development of these functions, suggesting that the effects of exercise play on skill and economy of movement are permanent. The implication of this finding for children has been highlighted by Pellegrini and Smith (1998) stating that exercise play may help shape children's muscle fibres used in later physically vigorous activities.

The second form of physical play, rough-and-tumble (R&T) play emerges slightly later than exercise play and is also typical among preschool children (Whitebread, 2012). It includes chasing, kicking, and play fighting and appears to be generally confused with aggression. It is, however, distinct from aggression, with exchange and mutual consent among participants (Tannock, 2014) as well as the evidence of enjoyment by participants. The beneficial consequence of R&T has been explored in animal research, with the findings holding implications for human development. Pellis and Pellis (2007) explored the impact of R&T play among young rats in connection with the development of the social brain and social competence. Specifically, young rats were either allowed the opportunity to engage in R&T play

[6] Synaptogenesis: the formation of synapses between neurons in the nervous system. Definition taken from https://en.wikipedia.org/wiki/Synaptogenesis

or were deprived. The results of the study indicated organisational changes in the brain of play-deprived rats, particularly the areas involved in social behaviour. What emerged as significant is that the play-deprived rats were excessively stressed by new social encounters and could not adopt strategies to alleviate the stress. In extrapolating their findings to the importance of R&T play for young children, Pellis and Pellis (2007) stated, "it may not be the case that the more socially competent children engage in more play fighting, but rather that the play fighting may promote the development of social competency" (p. 97). Although the implication of the findings for children's development is important, there is a caveat to consider given the fact depriving rats from R&T usually means depriving them from social contact. This raises the question of whether the behavioural differences found in the rats were due to isolation or lack of R&T. Addressing this limitation, Einon, Morgan, & Kibbler (1978) paired young rats with a single adult female in order to provide opportunity for them to engage in normal social behaviours, such as huddling and little opportunity for R&T, because according to Pellis and Pellis (2009) adult female rats seldom engage in R&T and even when they do, it is not with young rats. Einon et al., found that the same social deviations occurred when the rats had social contacts, but were deprived of R&T. This suggests that the relationship between R&T and the development of social competencies may not be misleading.

Fine-motor play, the third form of physical play, relates to a variety of activities that help young children's learn fine-motor hand and finger coordination. Examples include drawing, colouring, manipulating objects and construction. These type of activities, according to Whitebread (2012), are often solitary and due to their absorbing nature, can help children develop concentration skills, perseverance, physical dexterity and hand-eye coordination.

In sum, physical play has three main forms, exercise, rough and tumble and fine-motor play. Research has examined the role of physical play in children's development. Although the evidence suggests that through physical play children develop skill and economy of movement as well as social competencies, it needs to be emphasised that the relationship is correlational not causal.

2.2.2 Playing with objects

The second type of play, play with objects, refers to children's playful use of objects. It involves exploration, manipulation and the use of objects in novel and varied ways. Therefore, it has important associations with physical play, symbolic and pretend play. According to Whitebread (2012), object play starts as soon as infants can grasp and hold on to objects and it includes behaviours such as putting objects in the mouth and dropping them. From around 18 to 24 months toddlers begin to manipulate objects (e.g. assembling blocks), but sometimes involve pretend play (e.g. building a house). By the age of 4 years, children use objects as symbolic tools (Morgenthaler, 2006) and behavioural activities such as building and construction emerge (Whitebread, 2012). During these years, children's construction with objects takes on elaborate forms. They play with blocks and with materials like play dough. Research evidence links object play with children's thinking, reasoning, problem-solving skills and the development of mathematical thinking and learning of mathematics as well as social development. Pellegrini & Gustafson (2005), for example, observed 3 to 5 year olds for a whole school year and established that the amount of playful exploration, construction and tool use in which children engaged was related to their subsequent performance on physical problem solving. Thus, it is likely that experience in exploring objects through play is correlated with the development of problem-solving and thinking skills.

Research exploring the relationship between children's play with objects and mathematical learning has documented evidence within multiple mathematical strands including geometry, number and pattern. In a study examining the development of logico-mathematical[7] knowledge among 80 children (1 to 4 years) in Japanese preschool, Kamii, Miyakawa and Kato (2004) asked children to build 'something tall' with 20 blocks. From their study, they found that through block play children uncovered spatial relationships and had an understanding of numerical relationships by making subgroups of all blocks with the same number. Further, they

[7] Logico-mathematical relationships constitute a network in which the development of one part stimulates the development of other parts as children act mentally and physically on objects (Kamii, Miyakwa and Kato, 2004)

found that as children grew older, they showed progressively sophisticated logico-mathematical knowledge, such as, combining two identical triangular blocks to make a square, discovering that a square block cannot stay on the tip of a triangular block. The authors suggest that through block play, children develop classificatory, seriational, numerical, spatial relationships in an interrelated manner. Similarly, in a very recent study, Nath and Szücs (2014) examined the relationship between Lego construction and mathematical performance among seven-year-old children in the UK. Mathematical performance was assessed using the Wechsler Individual Achievement Test (II) numerical operations. They found a positive association between children's Lego construction and mathematics performance, leading them to suggest that object play may be used to train mathematical skills in young children. In another study, a longitudinal follow up, Wolfgang, Stannard and Jones (2001) examined block play performance and the later mathematical achievement on standardized tests of 37 American children from age four through high school who attended play-oriented preschool. They found that at 7th grade, middle and high school, children's early block performance during the preschool years and achievement in mathematics was positively associated, even when results were controlled for measures of IQ. The same group of researchers found a similar relationship when they examined the longitudinal outcome of Lego performance during preschool years (age 3 to 4) and children's later achievement in mathematics at the seventh grade (Wolfgang, Stannard, & Jones, 2003).

The role of object play in association with number development and counting has been documented. For example, in a study of 90 American preschool children's (4 to 5 years) use of mathematics during free play, Seo and Ginsburg (2004) found that 12% of observed children's play involved enumeration. Children engaged in enumeration, which included activities such as saying number words, counting, reading or writing numbers, while playing with small toys and beads. In the same study, the role of pattern and algebraic thinking in children's play was examined. Seo and Ginsburg (2004) found that 21% of the observed children's play involved pattern and shapes. It included activities such as identifying or creating patterns or shapes. They observed children creating colour pattern with beads and making alternating patterns with

wooden blocks and toys. This could imply that children who engage in more object play are more likely to develop an understanding of mathematical concepts. Furthermore, it suggests that resources provided for object play should have more potential affordances.

The role of object play, particularly loose parts objects, in children's social development has been explored. Although research in this area is at its early stages and appears to lack robust research designs, a systematic review by Gibson, Cornell, & Gill (2017) suggests that loose parts object play provide indicators of developing social skills, such as negotiation, teamwork and co-operation.

In sum, playing with objects involves children's use of objects in varied ways. Studies so far have established a relationship between children's object play and problem-solving skills as well as social skills. Furthermore, researchers have explored the link between object play and mathematical skills and have documented evidence in multiple strands of mathematics – geometry, pattern and number.

2.2.3 Symbolic play

The third form of play, symbolic play, is very closely related to pretend/socio-dramatic play. The term has therefore been used interchangeably. However, Whitebread (2012) provides a useful distinction between the two, explaining that both types of play involve 'language' but the difference between them is that the former involves playing with language or manipulating the forms and functions of language and the latter refers to using language to develop pretend scenarios. Children's play with language, according to Whitebread starts at an early age in life when children below the age of 1 start babbling. As they grow older, Crystal (1996) explains that symbolic play becomes more vocalised and children hum, chant, sing, and make simple and repetitive sentence patterns. Following on, symbolic play rapidly increases in sophistication and children add rhymes and verbal games such as 'talking funny', mislabelling objects, e.g. calling a bowl a cup, and breaking pragmatic rules, e.g. saying good night when it is in the morning (Crystal, 1996). Research suggests that within symbolic play, children are able to master a

range of symbolic systems, including language, drawing, reading, and writing. In other words, play creates an environment for symbolic learning, which was recognised by early theorists, Piaget (1952) and Vygotsky (1978). They regarded play as an avenue in which children could practice the skills they are in the process of acquiring. Research evidence suggests that children's play with language is associated with developing language abilities, such as linguistic awareness and phonological awareness, and early literacy – reading and writing. The longitudinal works of Pellegrini, Galda, Dresden and Cox (1991), and Dickinson and Moreton (1991) provide converging results that suggest that symbolic play of pre-schoolers is related to literacy in kindergarten. Pellegrini et al. (1991) observed 12 preschool children's (3-1/2 years) play and language across two years in the south-eastern United States and assessed measures of early literacy, including emergent reading, writing. Similarly, Dickinson and Moreton (1991) observed pre-schoolers (3 years) in the northeastern United States for two years and assessed their literacy in kindergarten on measures of play and language as well as emergent reading and language. Pellegrini et al. (1991) found that symbolic play and linguistic verbs predicted emergent writing and reading, respectively. Children's ability to use linguistic verbs and to talk about language predicted their reading at the age of 5. Dickinson and Moreton (1991) reported similar results. They found that the amount of time children spent in talk during play with their peers correlated with their performance on standardised vocabulary measure at age 5, and strong predictor of a reading-related measure and their knowledge of print. Although the results suggest an association between symbolic play and developing language abilities, the developmental process involved in this process is not clear.

In sum, symbolic play involves playing with language. Symbolic play is known to be interrelated with developing language skills. Evidence from longitudinal research provides support to this relationship, although the underlying process is unclear.

2.2.4 Pretend/Socio-dramatic play

Pretend or socio-dramatic play is the most commonly studied type of play (Lillard, 2015), perhaps because of its proposed importance for children's development. It involves the representation that an object or an action is something else that it is not, for example, a cup as a car (Lillard, 2001). It emerges around 12 months of age, involving simple actions like pretending to be sleeping, developing through the early years through the primary age into various manifestations of pretence. By age 3, it develops into socio-dramatic play and becomes more cooperative and social involving other children, role-play, stories or narratives (Smith and Pellegrini, 2008).

The benefits of pretend play for children's development and learning has been widely researched. In a recent review of the evidence, Lillard et al. (2013) suggest that due to lack of replication of results, existing evidence is not as strong as is implied to draw causal conclusions of pretend play's impact in children's learning. However, there is some evidence that suggests that perhaps engaging in pretend play is positively correlated with a range of learning outcomes for children, including self-regulation, language and literacy, understanding mental states, social skills and cognitive development.

The role of pretend play in helping children manage their own behaviour has been shown to be rich in self-regulating language (private speech). Krafft and Berk (1998) examined private speech and pretend play among 59 three-to-five years children in two American preschool. They observed free play activities of children enrolled in a Montessori and a traditional play-oriented programme, which were contextually different. The Montessori setting emphasised closed-ended activities and de-emphasised pretend play, whereas the traditional play setting offered different play activities including pretend props. They discovered that children in the traditional preschool displayed more self-directed speech than the Montessori children, with higher levels of pretence-related private speech and self-guidance, after controlling for verbal ability and age. The findings suggest that children are able to use self-directed speech to guide their own

behaviour and create imaginary situations during pretend play and highlights the importance of open-ended play activities.

Furthermore, children's pretend play is considered to be interrelated with their development of emotion regulation ability (ability to manage one's emotion) – a component of self-regulation, which is considered an important feature of positive mental health (Meyers & Berk, 2014). In exploring this relationship, Galyer and Evans (2001) examined 47 kindergarten (4 to 5 years) children's pretend play and their development of emotion regulation, as well as parental reports of their emotion regulation skills in New Zealand. To assess children's emotion regulation, an emotionally arousing play scenario in which a crocodile puppet threatened to eat all the game characters and buildings the children had constructed, was introduced in the pretend play context. Children's responses were categorised as not continuing play or successfully continuing pretend play and resolving conflict effectively. Their results showed a significant difference in the emotion regulation scores across for children who made no response to the crocodile, those who continued the game with the crocodile and those who did not. In addition, children who successfully resolved the conflict and continued playing the game were rated significantly higher on the parent ratings of emotion regulation and those parents reported engaging in pretend play with their children. On the other hand, children who did not continue the game had lower ratings on the measures of emotion regulation and their parents reported not engaging in pretend play with them. Their findings highlight the importance of adult-child interaction as a useful way of developing emotion regulation skills, however, since emotion regulation is a set of skills, it is possible that some children have more adaptive responses to some emotions than others.

In terms of cognitive development, researchers have linked children's pretence to the development of mental representation ability (theory of mind –ToM), and creativity. The relationship between pretence and ToM suggests that pretend play "gives children experience with mental representations which they understand as such in a pretend context and can later apply to non-pretence context" (Lillard, 2001, p. 497). The development of understandings

about others' minds has been recognised as significant in the development of social competence, including self-regulation. In light of the association between pretend play and ToM, researchers have examined whether the extent to which children engage in pretence can influence their rate of ToM development. Taylor and Carlson (1997), for example, investigated the association between early pretence and children's knowledge about mental states. The study involved 152 three and four-year-old American children. Taylor and Carlson (1997) interviewed children about their fantasy lives (e.g. imaginary companions and impersonation of imagined characters) and assessed their level of pretend play and verbal intelligence. Later, they used several ToM tasks – measures of appearance-reality false belief, representational change, and perspective taking – to assess children's ability to differentiate their own mental representations from reality and from others perspectives. They found that children's ToM performance was associated with their engagement in pretend play and fantasy among four year olds (but not three year olds), independent of children's age and verbal intelligence. The authors speculated that the difference in the results might have been due to the fact that their methods for assessing individual differences were not appropriate for younger children. However, other researchers have had similar results, suggesting that children do not develop the ability to deploy theory of mind, for example false beliefs, until about age four or five although they engage in pretence at a much earlier stage. Following up on their study three years later, Taylor et al. (2004) reassessed 100 of the 152 original children. They retested the children to assess how the developmental course of their fantasy behaviour (play with imaginary companions and impersonation of imaginary characters) was associated with their social understanding. The results showed that children's theory of mind at age four was related to their understanding of emotions three years later.

According to Russ (2003), pretend play is important in the development of creativity because a lot of the cognitive process involved in creativity occur in play. One of the cognitive aspects of creativity that relate to play is divergent thinking (Moore and Russ, 2008) and has been identified as important in creativity. In divergent thinking, children generate a variety of ideas and association to a problem. Divergent thinking involves ones' ability to freely associate with a

problem and fluidity of thinking, and has been found not to depend on intelligence (Russ, Robins, & Christiano, 1999). Empirically, the relationship between pretence and creativity has been examined. For example, in an experimental study of 52 children between the ages of 6 and 7 who were asked to make collages, Howard-Jones, Taylor, & Sutton (2002) found a significant positive effect of play on creativity. Prior to making of the collage, the children were randomly allocated to two groups – playing with salt-dough and copying words from the board. The children were then asked to produce a collage, which was assessed by a group of independent judges. The children in the salt-dough group made more creative collages compared to those who copied words from the board. Although their result was significant, it would be difficult to conclude that playing with the dough made the children more creative. Perhaps, an alternate explanation could be that children in the dough condition were mentally relaxed after playing with the dough (Forgays & Forgays, 1992). In another experimental study, Russ, Moore and Pearson (2007, as cited in Moore and Russ, 2008) assigned children to three groups – affect play, imagination play and control group – and measured the impact of play on children's creativity. In the affect and imagination groups, the children were given toys and were encouraged to express feelings (affect group) and play out stories with high fantasy (imagination group). Children in the control group were given puzzles. They found that the play intervention led to an improvement in pretend play for the imagination group and that group effects for outcome measures of creativity was significant. However, in a follow-up study conducted to determine the long-term outcomes of the intervention, Moore and Russ (2008) reported that the positive correlation found between pretend and creativity in the initial study was not stable overtime. One possible reason for this could be the use of different examiners in delivering the intervention.

The role of pretend play in improving children's literacy has also been demonstrated. The evidence suggests that through pretend play, children's emergent literacy skills and linguistic competence are improved. Although the evidence for causal relation is wanting, it seems more likely there is a correlational relation between pretend play and early literacy. Due to the

overlapping nature of pretend play with symbolic play, a lot of studies examining the play-literacy relationship have focused on children's use of language in pretence. For example, Levy, Wolfgang, and Koorland (1992) questioned whether language skills are best taught to children in kindergarten classrooms or are best developed through practice in more free play activities. To address this, they examined the relationship between enriched socio-dramatic play and language performance among 3 American kindergarten children (4 to 5 years) using a single case repeated measures multiple-baseline design. Baseline language samples were collected for all three children. Their findings revealed an increase in children's language performance, including number of words, number of specific words and concept of words. Another example is Neuman and Roskos' (1992) study that involved 91 children (3 to 5 years) from two day-care centres in the United States. They videotaped samples of children's free play and examined their play themes and use of literacy objects after an intervention (enriching one centre with literacy objects) was introduced in one of the centres. Prior to and following the enriching of one the centres with literacy objects, the researchers obtained baseline data about children's literate behaviours through direct observation. They found that children in the experimental group engaged in more handling, reading and writing demonstrations in play than those in the control group. Furthermore, children in the experimental group integrated literacy objects in more functional ways, using more explicit language than those in the non-intervention group. For example, only 14% of children's play in the intervention group was dominated by nonverbal actions, compared to 41% in the control group. Though these studies provide evidence to support the role of pretend play in literacy development and the need to enrich settings, it is possible that making the materials available increases children's ability to interact with them, probably by promoting interest. However, making use of this to promote the acquisition of skills deemed valuable is essential.

In sum, pretend play involves the substitution of objects. It has been associated with a range of learning outcomes for children, including theory of mind, social skills, self-regulation and

creativity. Although existing research have shown the relationship between pretend play and these outcomes, the evidence is not conclusive.

2.2.5 Games with rules

The last form of play is games with rules. It develops from a very young age when children become interested in rules, and thus create their own. It includes physical games such as hiding, throwing and catching, and as maturity sets in, more intellectual games such as card, board, and computer games. Apart from contributing to children's understanding of rules, its learning role is derived from its social nature (Whitebread, 2012). Playing games with their peers, siblings and parents enable children acquire a range of social skills including turn-taking, self-restraint, and working in a group. DeVries (2006) reviewed Piaget's work on games with rules and how it contributes to children's social, moral, and intellectual development, arguing that through game play children learn autonomous feelings of obligation by choosing to play and to follow rules.

In addition to helping children develop socially, games have been associated with children's learning of mathematical skills such as number development and counting. In their body of work, Ramani and Siegler (2008) and Siegler and Ramani (2008, 2009) showed that playing games helps pre-schoolers' numerical knowledge. With a focus on low income children (4 to 5 years) in the USA, they found that playing number board games for a minimum of 15 minutes improved children's ability to count, identify numbers, make comparison and complete number line task. The benefits of playing the number board game remained for a period of nine weeks. Studies in different contexts have found similar results. For example, Wang and Hung's (2010) study of eight Hong Kong kindergarten children's (4 to 5 years) number sense development revealed that playing linear board game improved children's performance on numerical skills such as making comparison and computation. In corroborating these findings, Whyte and Bull's (2008) study examining the effects of linear number board game play on the development of numerical skills among 45 Scottish children (mean age 3.8 years) found an improvement when the children were assessed on early numeracy skills. The pre and post-test performance

compared, following four 25 minutes intervention session, showed that the linear number board game significantly improved children's performance in basic number skills, including number naming, making comparison and number line estimation.

In sum, play has been categorised in different ways. However, for the purposes of this study, five categories of play and their roles in children's learning have been discussed. Physical play has three different forms, exercise play, rough and tumble and fine motor play. At least, research in animals shows that exercise play and rough and tumble play confer developmental benefits in relation to children's muscle fibre and social development, respectively. Playing with objects involves the open-ended use of objects in play. This type of play has been associated to children's development of thinking and problem-solving skills as well as mathematical concepts and skills. Symbolic play involves children's manipulation of the forms and function of language and starts when children below the age of 1 start babbling. It has also been linked with children's development of language abilities, such as linguistic awareness and phonological awareness, and early literacy. Pretend play involves object substitution. Studies on pretend play suggest associations between pretence and mental representation, creativity, emotion regulation and literacy. Finally, games with rules comprise children's use of rules in games. Its role in children's development has focused on the acquisition of social skills and the learning of mathematical skills.

Now that we know about different types of play and research highlighting their importance and role in children's learning, this brings us to a discussion on stakeholders' beliefs about the importance of play in children's learning. Is there a consensus between the research findings about the role of the different types of play in children's learning and stakeholders' beliefs about play? Stakeholders' beliefs about play can lead to positive or negative judgments about the significance of play. The resulting attitude towards play may influence how much play is encouraged and supported. Consequently, there has been an increasing interest in studying adults' play beliefs in different cultures or sub-cultures. These studies have revealed different play beliefs among stakeholders, specifically, parents, teachers and head teachers. A thorough

search of literature revealed that little to no research exists specifically on head teachers' perceptions. Before reviewing studies on all three stakeholders, studies that have focused solely on parents and teachers are first presented.

2.3 Research on Stakeholders' Play Beliefs

2.3.1 Parents

Parents' beliefs about play differ across cultures. First, in a five-country (USA, UK, France, Germany and Japan) telephone interview survey conducted by the Lego Learning institute on parents' (approximately 3000 parents of children aged 0-12) beliefs about children's play, a large majority of the parents (94%) agreed with the notion that time spent playing is time spent learning (Knoop & Jensen, 2003). However, parents felt that more time should be spent on cognitive tasks at the expense of free time when play occurs, demonstrating their doubt in play as really a way to learn. Additionally, significant cultural differences were identified. Parents in the UK (50%), USA (54%), and France (55%) indicated their preference for more planned activities and lessons, whereas, 83% of parents in Japan and 61% in Germany supported free play activities. Figure 2.2 presents a graphical representation of the cultural differences in the parents' beliefs about planned lessons or free play. Similar findings emerged in another survey by Glick Gryfe (2005, as cited Golinkoff, Hirsh-Pasek, & Singer, 2006) that asked parents to rank the value of play. Parents ranked 'learning through play' as number 12 on a list of 14, whereas 'releasing energy' was ranked as number 1, suggesting many of the parents do not seem to appreciate that children can learn through play or that they think play is less important for learning than for releasing energy, which is reflective of the classical theories of play (discussed in section 2.1.1) that have narrowly described the role of play.

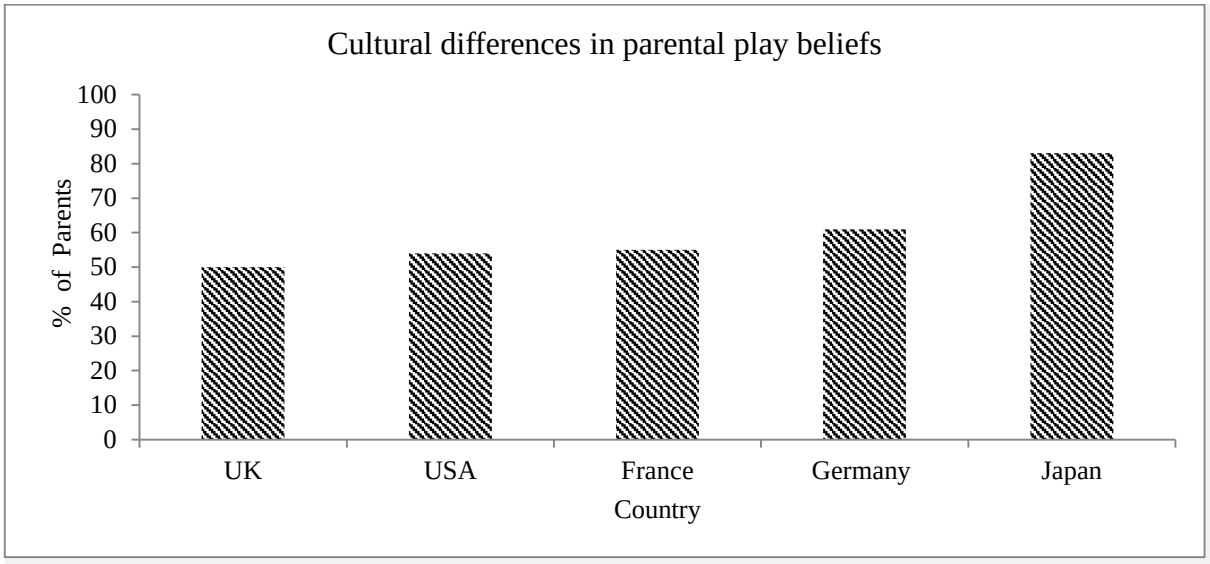


Figure 2.1 Cultural differences in parental play beliefs

In another study, Parmar, Harkness and Super (2004) found variations between Asian and Euro-American parents' of preschool-aged children concerning the nature and purpose of play. Using multiple methods (interviews, questionnaires and a diary of their children's daily activities) they found that Euro-American parents regarded play as an important medium for early learning, whereas the Asian parents perceived minimal learning benefit in it and accorded importance to an early start in academic training for their children. Consistent with their beliefs, the Euro-American parents provided more play resources, and facilitated their children's play, whereas the Asian parents made available few resources and served as teachers and coaches at home.

2.3.2 Teachers

Teachers' beliefs about play also differ somewhat across cultures. Adopting a mixed methods approach involving video-stimulated focused group discussion and questionnaires, Wu and Rao (2011) examined 15 German and 22 Hong Kong kindergarten teachers' conceptions of play and learning and identified significant differences in the teachers' conceptions of play. Consistent with the findings of the Lego Learning Institute, German teachers emphasised the importance of free play and identified it as a form of learning. To them, children gain lots of learning experiences through play. On the contrary, Hong Kong teachers regarded play and learning as separate elements, but used play as a strategy to capture children's attention and to encourage

them to focus on academic activities. Consequently, play served as a reward for completing academic work. In another study, (McInnes, Howard, Miles, & Crowley, 2011) interviewed and observed six teachers in the UK and found that the teachers in their study regarded play as a learning process and were aware of the value of play. Similarly, Ranz-Smith (2007) utilized interviews and found that four first grade teachers in America agreed on the value and importance of play in children's learning. Consistent with German, UK and US samples, Sandberg & Heden (2011) interviewed seven teachers in Sweden and found that the teachers acknowledged the contribution of play to learning academic skills.

2.3.3 Parents, teachers and head teachers

Some studies have compared parents' and teachers' beliefs about play. For example, a study by Chowdhury & Rivalland (2012) involving interviews with four parents and four teachers in the Bangladesh context revealed that parents and teachers perceived play differently. Parents considered play as a recreational activity, whereas the teachers regarded play as an activity that helps in facilitating children's learning and prepares them for school. Similar findings emerged from Badzis (2003) study in Malaysia. In this study, Badzis interviewed 30 parents and 30 teachers and found that parents perceived play as a leisure activity and a waste of time meant for learning. On the contrary, while the teachers considered play as important for children, they did not consider play as having an important role in children's learning in the classroom.

Other studies find more alignment between groups of stakeholders' beliefs. For example, Fung and Cheng (2012) interviewed Hong Kong early years stakeholders (98 parents, 24 teachers and 20 head teachers) and found that all the stakeholders regarded play as 'mere play', an activity used as a tool for the transmission of teaching content. They did not regard play as a form of learning. In contrast, using survey with 50 parents and 25 teachers, Powell (2010) found that American parents and teachers agreed that play and learning are inseparable and that children learn in play environments. Similarly, Keating, Fabian, Jordan, Mavers, & Roberts (2000) examined the attitudes to and perceptions of play among five major stakeholders in the reception

classes of ten primary schools in England and showed that the parents, teachers and head teachers shared a common theme of play as a way to stimulate and extend learning as well as a foundation upon which future learning is developed.

The conclusion that can be drawn from these studies is that the role and importance of play in children's learning is perceived differently across different contexts. In some contexts, for example, in the USA, it is perceived as serving a contributing factor to children's learning and might assume greater centrality in their education. In other contexts, for example, Asia, this conception does not always hold true. These differences may stem from variations in cultural conceptions of how children develop, but little is known about what influences ones' beliefs about the role of play in learning. Notwithstanding, some studies have attempted to explain what could be accounting for variations in adults' beliefs about play, for example one's own level of education. These studies have mostly focused on parents, probably because most teachers and head teachers are required to receive professional training beyond basic education. Findings show that stakeholders with high levels of education are more likely to support play in children's learning. For example, Pirpir, Er, & Koçak (2009) compared Turkish parents' attitudes towards the role of play in children's learning in the context of parents' educational status. Their results showed that parents (both mothers and fathers) with high education status (graduated from high schools and universities) expressed positive attitudes towards play and its role in children's learning compared to those with low education status (graduated from primary schools). Their findings suggest that the higher the parents' education status, the more positive attitudes they expressed towards play as a learning opportunity. Similarly, Manz & Bracaliello (2016) found positive association between parental education and their endorsement of play as an important element in children's development. Parents who completed high school education were more likely to support play as valuable for children's learning compared to parents who did not complete high school. Furthermore, LaForett and Mendez (2016) found that parents' level of education predicted their support for play as a context for learning. They found that American parents with higher levels of education endorsed play as important for promoting

children's learning. Although these studies are limited because they have mainly studied only parents, they offer a glimpse of what might be accounting for the differences in stakeholders' play and learning beliefs.

Aside from examining the factor that is related to adults' beliefs, other studies have identified factors that are perceived to hinder a play-based learning. Findings from these studies suggest that although the stakeholders seem to hold positive beliefs about play, their beliefs are constrained by environmental factors and educational guidelines. Cooney (2004), for example, conducted a study in two Gautemala kindergarten classrooms in two different districts. Using survey and observation, she found that both parents and teachers shared similar beliefs about children's play and learning. They considered play as beneficial for children's learning. However, the teachers reported being constrained by factors which centred around pedagogy and environment, including teacher-child ratio, lack of resources and the absence of professional training. Similarly, Avornyo (2014) through interviews with four early years teachers in the UK and Ghana found that all the teachers, with the exception of one, considered play as a learning opportunity for children. However, the Ghanaian teacher who perceived play as a form of learning also identified limited space, time, lack of resources and attitudes of head teachers and administrators as major obstacles to incorporating play in the classroom. Furthermore, more recently, Fesseha & Pyle's (2016) study with Canadian teachers revealed that curriculum expectations, limited time as well as pressure from parents and administrators were key factors that challenged the implementation of play-based learning. Similarly, Chowdhury & Rivalland (2016) found that although early years teachers in Bangladesh perceived play as a way of facilitating children's learning, they identified poor classroom environment, lack of resources, and limited time as hindrances to classroom practice.

2.4 Summary

In summary, the literature review section provides an appraisal of literatures relevant to play and learning in young children's education. It opened up with a discussion on the different theories

(classical and modern theories) that have been espoused to explain play and its purpose in children's learning. Classical theories have described the purposes of play narrowly. Building on these foundational explanations, modern theories have tried to enhance our understanding of play and its role in children's learning. This was followed by a discussion on five different types of play (physical play; play with objects, symbolic play, pretend/socio-dramatic play, and games with rules), highlighting the characteristics and empirical evidence about their role in children's learning. Then studies on stakeholders' perceptions of play and its role in children's learning were reviewed. What emerges significant about the studies reviewed is that play and its role in children's learning is perceived differently across different contexts. These different perceptions tend to influence the position of play in the classroom and the provisions made for play. In some cultures, it serves a unique role in children's lives and assumes greater centrality in their learning and education, but this does not hold true in other cultures. Therefore, while it is arguable that play is a universal feature of childhood and a basic predisposition of children across culture, its importance as a form of learning as across cultures is debatable. Despite the evidence put forward by researchers that the different types of play discussed in section 2.2 offer a road to learning, its acceptance seems to be a function of social and cultural beliefs about mechanisms for children's development and learning. The social and cultural factors that determine a child's play has influenced current conceptualization of children's play as a cultural activity.

In the next chapter, I discuss the socio-cultural perspective of play and how it provides a theoretical background for understanding this research. The starting point for this chapter is a discussion on the difficulty associated with defining play, which leads to the working definition of play for this study. Then, I discuss the sociocultural theory of play as the theoretical framework of the study. In particular, I examine the work of Vygotsky, who argued that child development and play are fundamental processes, but also recognised the role the child's social and cultural community plays in terms of children's access to play.

CHAPTER THREE

THEORETICAL FRAMEWORK

3.1 Defining play

Remarkably, it seems easy to recognise some of children's activities as play, but defining and conceptualising play in general has been very difficult. Defining play remains a theoretical challenge because play is manifested in multiple forms (discussed in section 2.2), which have been identified to have different characteristics and serve different functions. Another difficulty surrounding the definition of play relates to the fact that the term *play* is often used in different situations to label most forms of children's social and non-social behaviours (Pellegrini, 2009). So, for example, two children sitting at a table talking about the snack they are eating could be labelled *play*, but on what basis? Finding a common definition for play has therefore proven difficult. Based on the difficulty in establishing an agreed-upon definition, a multi-dimensional theorising of play is usually adopted and it has become more common to delineate features or characteristics for understanding and defining play (Lillemyr, 2013).

Over the years, there has been a growing consensus among play researchers on some of the characteristics used to describe play. Generally, experiencing pleasure, the voluntary nature of play, the absence of extrinsic goals and inner drive are commonly identified as defining characteristics of play. Garvey (1990), for example, discussed five characteristics as fundamental to understanding children's play: pleasurable and enjoyable, lacking extrinsic goals, spontaneous and voluntary, involving active engagement on the part of the player, and having certain systematic relations to what is not play. Similarly, in his review of children's play, Smith (2010) conceptualised play along five dimensions, namely, flexibility, positive affect, non-literality, intrinsic motivation and preference of performance over outcomes. Moreover, Burghardt (2011) in his rich overview of definitions of play, listed five dimensions needed in order to identify a behaviour as play:

- Play is incompletely functional in the context in which it appears; functional actions in play do not by themselves contradict play, but in play these actions are typically combined with actions that do not contribute to the achievement of a goal;
- Play is spontaneous, pleasurable, rewarding or voluntary;
- Play differs from more serious behaviours in form **(**e.g. exaggerated), or timing (appears before it is actually needed for survival);
- Play is often repeated, but not in stereotypical forms;
- Play is initiated in the absence of acute or chronic stress (Burghardt 2011, p. 17)

These criterion-based definitions of play are highly valuable attributes and prove very useful in operationalizing play and determining if a given behavior is play, particularly in analyzing data within research settings. Nevertheless, defining play using a list of attributes is problematic because it begs the question of whether an activity must meet all the criteria to qualify as play. For example, Burghardt's fifth criterion suggests that play occurs in a relaxed state. However, children have been observed to engage in pretend play under very stressful situations (Gray, 2013). Piaget (1962) also noted that play sometimes involves a representation of stressful experiences as a way of overcoming them, implying that children play even when they are stressed. Finding a list of criteria by which to define play is therefore necessary but appears not to be sufficient.

Furthermore, laying out specific criteria for defining play tends to focus on the individual players and falls short of the dynamic interactions among the players, the play setting and context. Recognizing these characteristics of play moves the conceptualization of play from the psychological domain, which focuses on the individual, to one that highlights the cultural element and characteristics of play. In line with this perspective, Frost's (2012) characterization of play provides a theoretical understanding of play within the parameters of this study. In his article, *The Changing Culture of Play,* he describes play as "a biological phenomenon for exploring, learning, and adapting cultural roles, values, and rules of society" (p. 117). Reasoning

about play from this perspective points to three interesting observations. First, the definition conceives play as a natural process of humans in all cultures. Secondly, it recognises the social and cultural dimensions of play, which is based on interpersonal interactions with the help of cultural tools. Thirdly, it acknowledges play as a platform for children's development and learning. This definition therefore creates a window for understanding play within the Ghanaian context and falls in line with the socio-cultural perspective of play, discussed in the next section.

3.2 A Socio-cultural perspective on play

As mentioned in the previous section, the socio-cultural perspective recognizes play as a natural activity that serves as a vehicle for social interaction and testing one's cultural values. To reiterate, this perspective stems from the writings of Vygotsky on children's development. Of significance is his view that understanding a person requires an understanding of the social and cultural contexts in which the person lives. From this premise, the socio-cultural theory conceives development not as just a biological process but one that involves interpersonal interactions in the context of a particular culture (Rogoff, 2003). In other words, settings and activities are culturally bound and are determined by the meanings inherent in the culture of the participants.

One of the key defining characteristics of Vygotsky's (1966) writing on play is his view that play is remarkable in the sense that children are able to combine play situation and reality. For instance, he gives an example of how two children who were sisters in reality played out being sisters. He argues that although the children have a concept of 'being sister', they may not have the concept of 'sisterhood'. However, play creates a space in which children can bring together their concept of 'being sisters' and the concept of 'sisterhood'. Thus, through play, the children pay attention to the concept of sisters, making room for the formation of concepts. Vygotsky (1987) further theorised that children's use of everyday concepts in play sets the foundation for language learning. Again, according to Vygotsky (1966), play is a source of development and creates a zone of proximal development, which he considered important in the development of

higher mental functioning. For Vygotsky (1966), “in play, a child is always above his average age, above his daily behaviour; in play, it was as though he was a head taller than himself” (p.16). He argues that the child is able to develop essentially through play and believes play is the “highest form of preschool development” (p.16).

The proposition put forth by Vygotsky suggests play is the leading activity for young children’s learning. From this understanding, learning is not conceptualised narrowly as a change in an individual’s mental state or the acquisition of knowledge, but rather creating meaning and experiencing the world in a new way, which according to Pramling Samuelsson & Johansson (2006) is what children experience in play. Although Vygotsky’s theoretical ideas about play in the context of concept formation, language learning and cognitive development are very instrumental with regards to the value of play in children’s development and learning, his view on the role of play in children’s development was founded on a belief between biological and cultural development. He suggests that although children are biologically predisposed to play, they interact with cultural tools, which generate their development. In other words, children have the biological urge to play and through that they develop important skills. But, the forms play take, the status accorded it, with what and whom children play differ according to their social and cultural contexts, making it difficult to understand play without understanding the surrounding cultural context.

Understanding play in relation to the social and cultural contexts makes it a culturally constructed activity that varies across cultures. Given this cultural variability in play, beliefs about the role of play is dependent on the cultural decisions and values regarding the concepts of who children are, how children develop and learn as well as the concept of play (Lillemyr, 2013). In other words, how play is conceived in a particular community is a function of that community’s model of childhood, which has implications for children’s access to play and adults’ role in children’s play. It is therefore possible to find cultural variations in how play is conceptualised and valued in children’s lives. So, for children growing up in cultures, for example western cultures, where the community’s image of childhood considers a child as an

autonomous and free person whose development is based on learning concepts that draw on autonomy and choice (Lillemyr, 2013), play would be the primary way of spending their time. Children growing up in cultural environments, for example, non-western cultures, where a child is considered to be a small adult who develops and learns through adults' direct instruction, play would be just one of the many ways of spending their time (Cheng & Wu, 2013; Gaskins, 2014).

3.2.1 Play: Cultivated, Accepted or Curtailed

We see evidence of this cultural variability in the role of play most profoundly in the comparative cross-cultural research findings put forward by Gaskins, Haight and Lancy (2007). They have theorised that children's play may be cultivated, accepted or curtailed, which have implications for provisions made for children's play (See Figure 3.1). First, cultures that value play as an important medium for learning and development, cultivate play by providing abundant resources and time. For example, in their cross-cultural study of pretend play between middle class Chinese and European American families, Haight et al. (1999) found that pretence was typically encouraged and supported by adults. Chinese parents considered pretend play as a medium of teaching children culturally accepted forms of conducts and European American parents regarded play as children's work which enhances their cognitive, social and emotional development. Second, cultures that accept play as a major activity of childhood but place less emphasis on its potential as a medium for development and learning and make very little investment. Lancy's (1996) research work on the Kpelle in Liberia provides an elaborate example. According to Lancy, although adults in Kpelle accept play as children's activity and allow them to play a lot, the major function of play is to keep children busy because to them play is unimportant and almost invisible. As a result, children play more with their siblings, unsupervised by adults, and with naturally available objects rather than manufactured toys. Third, cultures that curtail children's play tolerate only minimal amount because they regard it as being of limited value, and expect children to contribute to household work. Gaskins' (2003) study of a Yucatec Mayan village in Mexico offers a concrete illustration. According to Gaskins (2003), children's everyday activities are structured and built around traditional household

chores and play occurs as a secondary activity when the child has no work to do. This is because play is regarded as serving very minimum function apart from being a signal that the children are healthy. Consequently, parents and adults do not provide materials for play and do not encourage or participate in children's play.

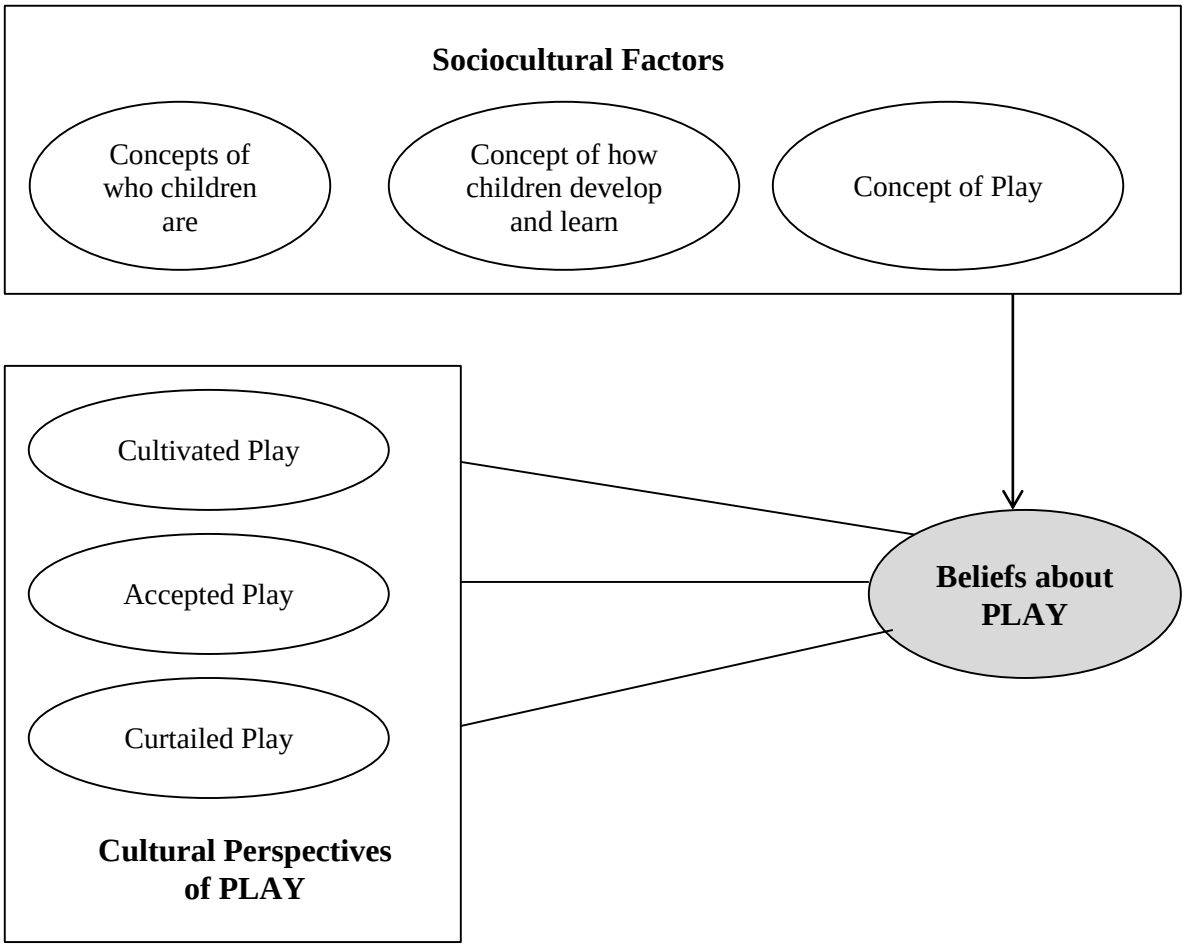


Figure 3.1. Sociocultural factors influencing beliefs about play

Considering these cultural perspectives, differences could be observed in the culturally perceived relationship between play and learning in early years education. On the one hand, cultures that accept and curtail play because of its perceived less importance in children's development might separate the two. Consequently, play in early years education might be used as a means to achieving a learning result, such as teaching children facts, an approach that has been referred to as play-for-learning (Nilsson, Ferholt, & Lecusay, 2017). On the other hand, cultures that cultivate play because of its perceived instrumental learning value for children

might consider play and learning as the same elements, an approach Nilsson, Ferholt and Lecusay (2017) have termed play-as-learning. That is, play that is valued of and for itself.

3.2.2 Adults' role in play

With these different culturally perceived value of play, what roles do adults have in children's play and do these also vary as a function of the value attached to play? As already mentioned, the socio-cultural theory conceives play as involving interactions with people and recognises the adults' role in children's play. Although, the theory suggests adults have a role in children's play, considerable cultural variations exist regarding adults' role in children's play. These variations are driven by cultural decisions about the importance of supporting children's play. Consequently, adults' role and involvement in children's play varies as a function of how play is conceptualized and valued. Nevertheless, adults' role in play ranges from the creation of a supportive environment, providing a range of opportunities to participating in children's play (Whitebread, 2012).

Creating a supportive environment for children's play involves the provision of an enriched environment full of appropriate materials, equipment and enough space, which will stimulate and support children's engagement in the various types of play. The impact of enriched play settings on children's play behaviour has been examined empirically. Findings from these studies, which have generally focused on an intervention strategy that involved enriching children's play settings, suggest that providing a stimulating environment for play cannot be snubbed. For example, in a study described in section *2.2.4*, Neuman and Roskos (1992) found that deliberately enriching the play environment boosted children's literacy activity in play in terms of its frequency, duration and complexity, suggesting that the materials encouraged children's production of literacy activity in richer and more detailed sequences. Similar findings have been reported by Saracho (2001) and Cook (2000) who found that enriched settings improved children's emergent literacy behaviours and narrative.

The next role is participating in children's play. Although participation in children's play is a cultural decision regarding play, research suggests that actively participating in children's play is important if play is to lead to equitable outcomes for children. This adult role is emphasised by Vygotsky (1966) as important. According to him, during play the child reaches a zone of proximal development (ZPD), which refers to the child's independent problem solving abilities. However, to maximise development within the ZPD, adult guidance is crucial. With the appropriate guidance from adults, the child learns more effectively. Similarly, Weisberg, Hirsh-Pasek, and Golinkoff"s (2013), review on different approaches to teaching and learning in the early years, support the notion of 'guided play'. Guided play, by their definition, involves two elements. First, it involves the provision of an enriched environment (as discussed above), which provides opportunities for exploratory learning. Second, it involves adults' participation by co-playing along with children, commenting on their discoveries, asking open-ended questions about children's discoveries and suggesting other possible ways of exploring materials that children might not have thought of. In this way, the locus of control lies with the child; however, the adult's role is not a passive one. The adult actively follows the child's play in a prepared environment and with subtle scaffolding. Guided play has been to shown to influence better academic outcomes among children. For example, in a study designed to teach new words using an interactive book reading activity, Han, Moore, Vukelich, and Buell (2010) found that a guided play intervention increased the vocabulary scores of at risk-preschoolers. The study involved 49 four-and five-year olds who were randomly assigned into two groups. Both groups received an intervention for 30 minutes twice a week. One of the groups received teaching protocol for the entire 30 minutes. The other group received 20 minutes of teaching protocol, followed by 10 minutes of guided play about the new words. Children in both groups increased their expressive vocabulary, but those in the play intervention group gained significantly more than those in the no-play group. In another study that investigated how play affects variations in language, Ferrara et al. (2011) found that parents who engaged in a guided play intervention with their children during block play produced significantly more spatial language (e.g. under,

next to) than parents who freely played with their children or who played with preassembled structures.

Despite the evidence of the impact of adults' role in children's play, variations have been found among different cultures. For example, in cultures where play is 'cultivated', adults provide a thriving environment for play and frequently and actively engage in play with children. An example is Haight et al's (1999) study of middle class Euro-American parents (discussed in section 3.2.1). In contrast, in cultures where play is 'accepted' or 'curtailed', adults neither provide play materials nor participate in children's play. Typical examples are Lancy (1996) and Gaskin's (2003) studies of Kpelle community in Liberia and Yucatec Mayan village in Mexico, respectively (discussed in section 3.2.1).

3.3 Summary

In summary, this chapter has discussed the socio-cultural theory as important for framing this study. The argument put forward here is that, although the need to play is universal, understanding the social and cultural contexts in which play is enacted is important for interpreting how play and its role in children's development is perceived in a particular community. Reasoning about play socio-culturally implies cultures will differ in how they theorize and recognize the importance of play in children's education. On the one hand, cultures that recognize the inherent value of play, will cultivate play by investing heavily in resources and taking active role in children's play as adults. On the other hand, cultures that recognize play as less important in children's development will either accept or curtail by allowing minimal play and not making provision for materials and also not taking key roles as adults.

Framing this study socio-culturally, allows for a more connected view of play in the Ghanaian early years classroom to emerge. It provides the grounds for understanding the individual perceived value of play and classroom practice not in isolation, but in relation to how the Ghanaian cultural community considers childhood and children's development. The studies reviewed so far in chapters 2 and 3 indicate varied cultural constructions of play and the status

of play in early years education, however, relatively little work has been undertaken in the Ghanaian context regarding children's play and learning in the early years. What will emerge from this socio-cultural background within the context of play and its role in children's learning? Therefore, examining how play is represented in early years classrooms and among stakeholders in Ghana is vitally important. It gives an understanding of how play is framed, theorised and built into the documentation and practice in Ghanaian early years classrooms. The study addressed the following research questions:

Main research Question

- What is the role and meaning of play in early years settings in Ghana?

To answer this, it was separated into six sub-questions:

1. What are parents', teachers' and head teachers' beliefs about the importance of play in children's learning?
    a. What are the differences among parents', teachers' and head teachers' play-learning beliefs?
    b. What clusters of stakeholders exist based on a combination of participants' status of being a parent, teacher or head teacher and their level of education? Do these cluster groups differ in their score on the play-learning belief scale?
2. How is play represented in the curriculum and to what extent is it fulfilled?
3. How do parents', teachers', and head teachers' describe play and learning?
4. How do parents, teachers and head teachers perceive the role and importance of the different types of play in early years learning?
5. How do parents, teachers and head teachers' perceive their role in children's play?
6. How do the teachers' views relate to classroom practice?

It was anticipated that the synthesis of the results of these six questions would provide a comprehensive answer to the main research question. However, from the literature reviewed, it

was hypothesised that parents, teachers and head teachers would differ in their beliefs about the importance of play in children's learning (Research Question 1a). Secondly, it was hypothesised that using cluster analysis based on a combination of factors (participants' status of being a parent, teacher or head teacher and level of education), groups with higher level of education would score higher on the scale, showing stronger beliefs associating play and learning (Research Question 1b). Predictions were not made for the remaining questions because they were answered qualitatively through interpretive inquiry. Nevertheless, from my experiences as a child and observations as a teacher, I expected to find similarities in terms of how play is conceptualised in relation to learning and classroom practice. Generally, I expected that play will be divorced from learning and teaching and learning activities will be centred greatly on the teacher with very minimal room for playful activities.

CHAPTER FOUR

METHODOLOGY

Adopting a socio-cultural framework as a way to understand this research called for a comprehensive research methodology that allowed an interpretation of intrapersonal perspectives on play and the surrounding social and cultural context. This chapter therefore provides an account of the background to the research design, why mixed methods were chosen as the most appropriate design. Also, it discusses the quantitative and qualitative methodology utilised.

4.1 Research Design

This study employed a mixed methods approach, which has been defined by Johnson and Onwuegbuzie (2004) as an "expansive and creative form of research where a researcher combines qualitative and quantitative methods or approaches into a single study" (p. 17). It rejects dogmatism and legitimates the use of pluralistic approaches in addressing research questions, thereby, opens the door for researchers to take an eclectic approach to the selection of methods. Thus, philosophically, this study adopted a pragmatic approach to answer the research questions outlined. Such a stance supports the use of both qualitative and quantitative approaches in a single study. Furthermore, it places primary importance on the research questions (Tashakkori and Teddlie, 2003) and oriented towards 'what works' in addressing research questions (Creswell & Clark, 2007). Its logic of inquiry includes deductions (testing theories and hypotheses) and abduction (discovering and relying on the best set of explanations for understanding one's results; Johnson and Onwuegbuzie, 2004). These features of a mixed methods approach are essential in a study framed socio-culturally in an effort to understand the role and meaning of play in the Ghanaian early years classroom, which comprised what parents, teachers and head teachers believe play to be, how play has been represented in the curriculum and what exist in classroom practice. Thus, a mixed methods approach helped examine the interpretations of play as well as understand the social and cultural influences.

The explanatory sequential design, a two-phased type of mixed methods design (Creswell, 2003) was used (See Figure 4.1). This design begins with the collection and analysis of quantitative data, followed by the subsequent collection and analysis of qualitative data (Creswell & Clark, 2007). Specifically, the participant (case) selection model of the explanatory design that focuses on the selection of participants or cases (Creswell & Clark, 2007) was adopted. This design was judged as most suitable to facilitate the appropriate selection of cases for the qualitative phase of the study and to provide a rich mix of evidence needed to address the indicated research questions. By starting with a quantitative study, quantitative information about participants' play beliefs was obtained to identify and purposefully select cases for a follow-up, in-depth qualitative study. Using survey data (questionnaire), which was developed and piloted in the preparatory phase, quantitative hypothesis testing addressed the differences among Ghanaian parents', teachers' and head teachers' beliefs about the role of play and learning for early years children. Based on the scores of the quantitative phase, four cases were selected for follow-up study in the second phase. A multiple case study involving the collection of qualitative data was then conducted. In this exploratory follow-up, an in-depth examination of the early years curriculum as well as exploration of parents', teachers' and head teachers' perceptions of play and learning in Ghana were investigated. The reason for the qualitative follow-up data was to help examine the position of play in the curriculum as well as provide rich insights into individuals' unique perspectives, voices and practices regarding play and learning, which would help to better understand the value early years stakeholders accord play in the Ghanaian cultural context. Figure 4.1 provides an overview of the mixed methods design, beginning from the preparatory stage to the main study.

By mixing qualitative and quantitative data, their respective strengths can be utilised to improve upon their respective weaknesses, making it a robust design (Lund, 2012). Both forms of data provide insights and understanding that might be missed when only a single approach is adopted (Johnson & Onwuegbuzie, 2004). The quantitative data, for example, not only helped inform the sample selection for the second phase, but also helped deduce what general perceptions of play

are held among Ghanaian parents, teachers and head teachers. Combining both approaches helped produce more complete knowledge about the status of play as well as parents', teachers' and head teachers' beliefs about play and learning, necessary to inform theory, and practice. Despite the strengths of this design, there are the challenges of how to mix the quantitative and qualitative data appropriately and the relative priority allocated to both methods of data collection to answering the research questions (Creswell and Clark, 2007). Thus, for this study, mixing the data was enacted by connecting the two types of data by selecting participants for the second stage of the study based on the quantitative information obtained. Furthermore, the quantitative and qualitative methods of data collection have equally important roles in addressing the research questions. Thus, both are given equal status in this study.

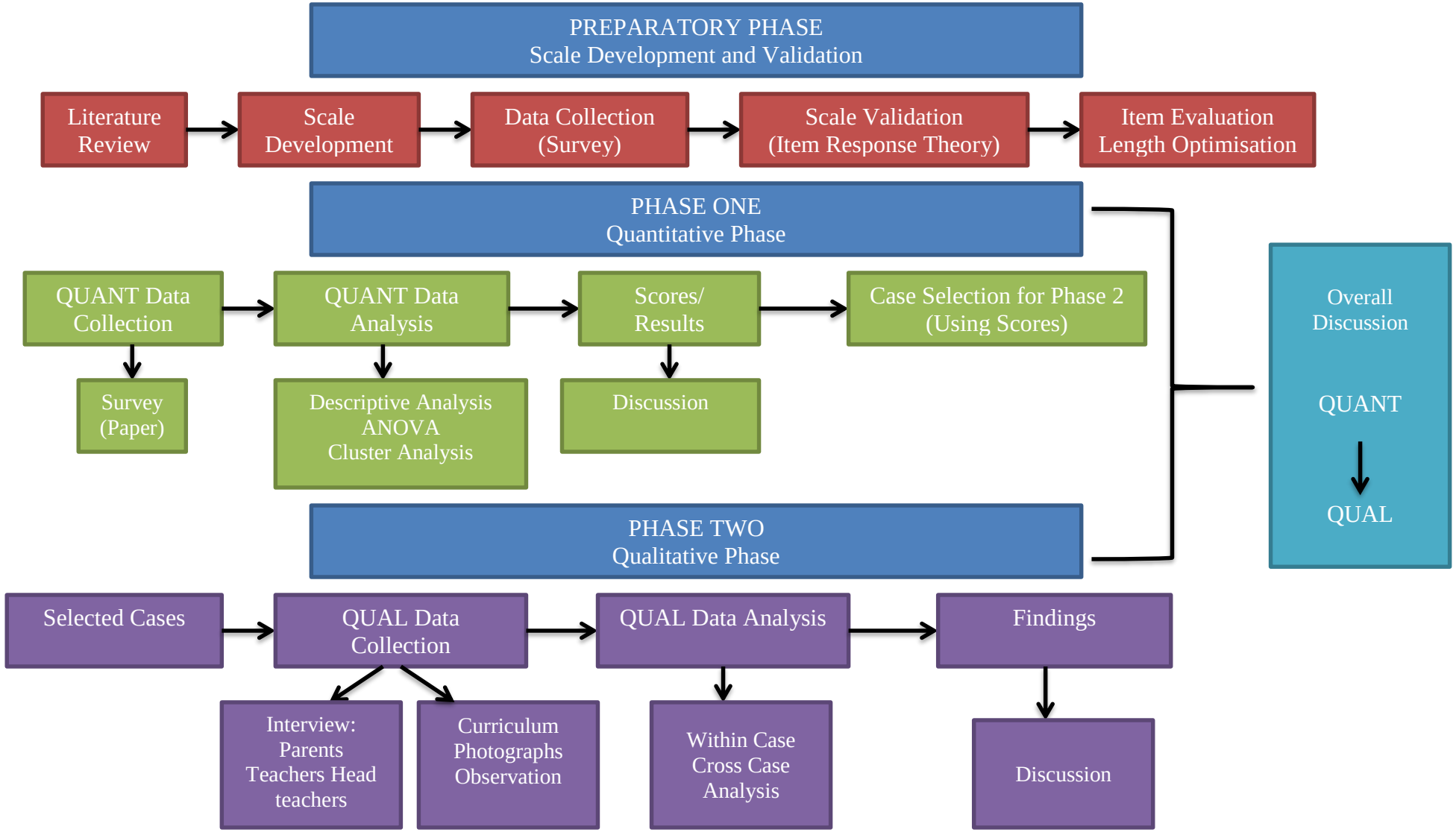


Figure 4.1. Visual diagram of the research design. From scale development to qualitative data collection
Note. An explanatory sequential design is used: Participant selection model. QUANT = Quantitative, QUAL = Qualitative

4.2 Quantitative Methodology

4.2.1 The Survey Research

Survey research, according to Isaac and Michael (1997) is a research methodology that is used to:

> answer questions that have been raised, to solve problems that have been posed or observed… to establish baselines against which future comparisons can be made, to analyse trends across time, and generally, to describe what exists, in what amount, and in what context (p. 136)

This definition from Isaac and Michael (1997) describes the characteristics of survey research. Particularly, it highlights the fact that survey provides the opportunity to describe the composition of a sample, which serves as a point of departure for further analysis or research. This distinguished feature of survey research constitutes the argument as to why a survey was conducted in the first phase of this study. The choice of this research strategy was deemed an effective way of gathering data necessary to describe participants' scores on the survey scale. The identified scores then served as the reference point to the selection of cases for the second phase of this study. In addition to knowing participants' scores, the survey data helped examine the differences among parents', teachers' and head teachers' play-learning beliefs. It helped describe the extent to which differences among parents', teachers' and head teachers' play-learning beliefs might be influenced by, for example, their educational status. Thus, the survey data provided insights from analyses of the data and gave a general sense of the stakeholders' beliefs (Glasow, 2005), would have otherwise been difficult to do with qualitative data.

4.2.2 The Survey Design

The survey design is an important aspect of the survey research and therefore needs to be validated (Cohen, Manion, & Morrison, 2007). In designing the survey, Levy and Lemeshow (1999) suggest the need to develop a sampling plan. A sampling plan, according to Levy and

Lemeshow (1999) is the methodology that will be used to select the sample from the population. In addition to the selection of a sample, it also describes how an adequate sample size will be determined, and the choice of media through which the survey will be administered (Glasow, 2005). These three key components of the survey design – population and sample; sampling and sample size; and survey media – were of importance in this study and thus, discussed in the following sections.

4.2.2.1 Population and Sample

As the quantitative phase of this study aimed to examine the perceptions of play and learning in the early years class of its three major stakeholders, which are defined as parent, teacher and head teacher, the target population[8] comprised parents of children enrolled in early years classes, the teachers who facilitate the activities of the children and head teachers who manage the activities of the schools. Given the unlikelihood of a list of all the early years stakeholders in the country being available and accessible, a list of all early years settings (which was obtained from the Ghana Education Service) in the country was used. A sample of early years was then drawn, and the stakeholders within each school were taken as the sample elementary units[9] (Levy & Lemeshow, 1999). A 'snap-shot' of what early years are like in Ghana has already been provided in chapter 1. Table 4.1 details the number of both public and private nurseries and kindergartens across the ten regions as of the 2013/2014 school year. Given the fact that public nurseries are very few, they were not included in the study. However, private nurseries were selected to give a sense of play in the nursery classroom.

[8] Population is the total set of individuals to which findings of the survey are to be extrapolated (Levy and Lemeshow, 1999)

[9] Elementary units are the individual members of the population whose characteristics are to be measured (Levy and Lemeshow, 1999)

Table 4.1. Number of Early Years by region and type of education, 2013/2014

Regions	Number of Early Years				
	Public		Private		
	Nursery	KG*	Nursery	KG	Total
Ashanti	75	2159	1473	799	4,506
Brong Ahafo	25	1626	432	561	2,644
Central	68	1331	638	799	2,836
Eastern	21	1651	587	717	2,976
Greater Accra	26	617	1337	1412	3,392
Northern	40	1851	190	311	2,392
Upper East	9	698	97	150	954
Upper West	2	543	35	47	627
Volta	56	1483	275	377	2,191
Western	47	1533	501	761	2,842
Total	369	13,492	5,375	6,608	25,844

Source: Ministry of Education (EMIS, 2014);
Note: KG = Kindergarten

4.2.2.2 Sampling and Sample Size

In survey research, the notion of being representative of the total population in strict statistical terms is important (Cohen et al, 2007). In the initial planning stages of the PhD project, a total of four regions were selected. An estimated sample size calculation[10] for the four regions using 95% confidence level and 3% confidence interval resulted in approximately 3040 early years classes. This number of schools was considered unmanageable within the constraints of a PhD project. The total number of early years settings was then reduced to 160 for the four regions. However, feedback during the initial planning stages of the PhD project pointed to the fact that selecting 160 early years settings from four regions was too large in scope for a PhD project. Consequently, the number of regions for the study was reduced to two with a total of 40 early years settings. To make the sample selected from the two regions as representative as possible, a range of things were taken into consideration (See Figure 4.2).

[10] The sample size calculation was done using Creative Service Systems (http://www.surveysystem.com/sscalc.htm)

In selecting participants, stage sampling, a probability sampling that involves selecting the sample in stages, was used (Cohen et al, 2007). Figure 4.2 shows the process of the sample selection. The first stage involved the selection of two different regions (Greater Accra and Brong Ahafo) across the country. These regions were purposefully selected because they represent different geographic and ethnic backgrounds in Ghana. Greater Accra region is located in the Southern part of Ghana, whereas Brong Ahafo region is set in the northern part of Ghana. Following the selection of the two regions, the early years settings within each region were then stratified by type of provision – public and private. The rationale and power of stratified sampling lies in the creation of homogenous groups, with each group containing participants with similar characteristics (Cohen et al, 2007). Accordingly, the two groups maximised the likelihood of selecting participants with similar characteristics, that is, the provisions made for early years children.

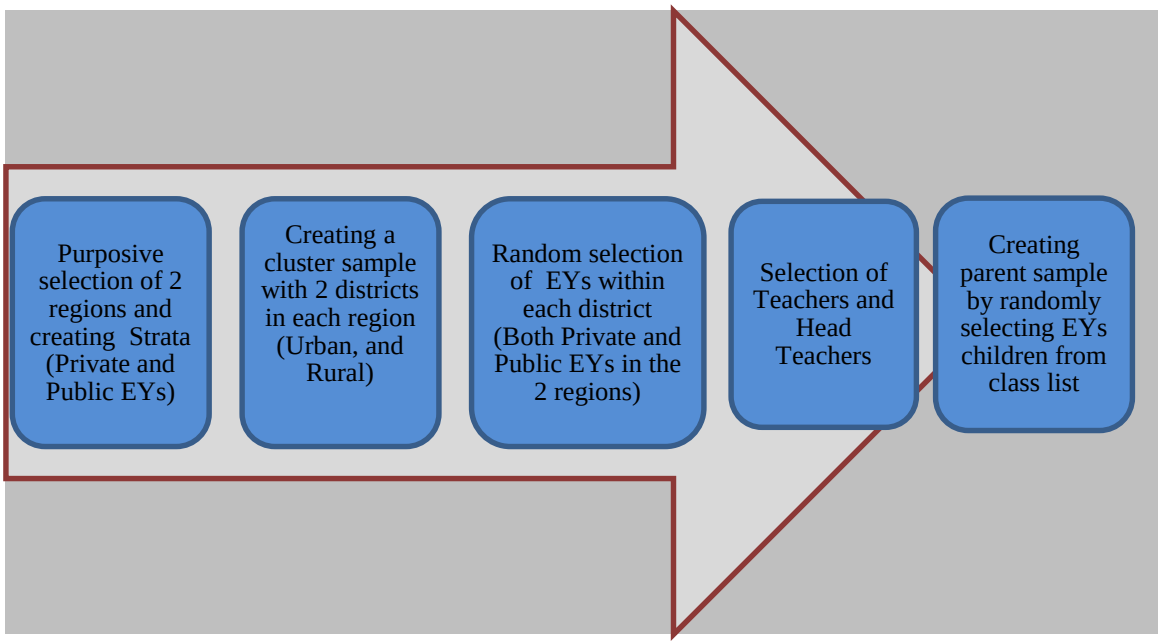


Figure 4.2. The process of sample selection

The next stage involved the creation of a cluster sample by selecting two districts in each of the two regions to form a cluster sample of early years settings in each district, that is, settings that are geographically close (Cohen et al, 2007). However, to ensure that the cluster sample did not build in bias, the districts were selected to cover provisions in urban and rural areas. Whereas

rural areas in Ghana are more likely to attract unqualified teachers and have parents with lower levels of formal education, urban settings are more likely to have qualified teachers and parents with higher levels of education (Cobbold, 2006). Therefore, with the list of schools in each district serving as the sampling frame, a total of five schools were selected for each type of provision (public and private). In all, a total of 20 schools were selected from each region, creating a gross total of 40 schools from the two regions. Table 4.2 shows sample selection for Greater Accra region. Randomly sampling the schools gave each school in the districts an equal chance of being represented.

Table 4.2. Sample selection for Greater Accra region

Region	Type of Provision				Total
	Public		Private		
	Urban	Rural	Urban	Rural	
Greater Accra	5	5	5	5	20

Following this, a list of nursery and kindergarten teachers was used to randomly select 3 teachers from each school. In addition, the head teacher within the sampled schools was selected to be included in the sample. For each region, 60 teachers and 20 head teachers were selected. To create the parent sample, 4 children from each early years setting were randomly selected from a class list. As in the selection of the schools, randomly creating the parent sample gave every parent of children enrolled in the selected schools an equal chance of being included in the sample. Parents of the selected children then formed the parent sample of this study. Although selection of four children from each setting widened the sample size difference among the groups, it was necessary due to the low response rate of parents observed during the pilot study, which showed that the parent sample had a relatively low response rate (45%) compared to 67% and 100% for teachers and head teachers respectively. The parent sample was therefore increased to make room for any low response. Thus, 80 parents were selected from each region.

In sum, a total regional sample size of 160 representing 80 parents, 60 teachers and 20 head teachers was created. Thus, across the two regions a total sample size of 320 comprising 160, 120 and 40 parents, teachers and head teachers, respectively, was selected. In determining the sample size, Cohen et al (2007) suggest the purpose of a study plays a major factor. Therefore, as the survey phase of this study aimed to gain a general sense of play-learning beliefs among early years stakeholders and helped in the selection of cases for the qualitative phase, a reasonable sample size was drawn. The formula used was based on Roscoe's (1975) recommendation. Roscoe suggests that sample sizes larger than 30 and less than 500 (30 >n< 500) are appropriate for most studies. Hence, the sample size for each group exceeds the central limit theorem (30) and therefore allowed exploration of group differences of the sample (DasGupta, 2010).

4.2.2.3 The Survey Media and Instrument

The data was collected using a survey questionnaire. While an Internet-based survey would have been a more efficient form of collecting data for this study, given its advantages such as reducing cost and time taken to distribute, gather and process data; accessing wider and much larger population (Cohen et al, 2007), there is the problem of ready access to Internet in most parts of Ghana. In view of this, a paper survey was considered more suitable for the collection of data. Nonetheless, one major difficulty associated with this method is poor response rate, which could compromise the reliability of the data (Cohen et al, 2007). To secure a relatively high response rate, Fogelman (2002) suggests the intended sample size should be increased. Therefore, the parent sample was increased by 40 participants (instead of 120 parents, 160 parents were recruited, representing a 33% increment. This yielded a 92% response rate.

To measure the stakeholders' beliefs about the role of play in children's learning, a survey instrument, referred to as the Early Years Play and Learning Perception Scale, was developed, piloted and revised. Details of the scale development and validation are discussed in chapter five.

4.3 Qualitative Methodology

4.3.1 Case Study Research

A strength of case studies is their potential to answer '*how*' questions within real-world contexts. Yin (2009) provides a two-fold definition that captures the comprehensive nature of case study research comprising the logic of design, data collection techniques and approaches to analysis. He describes it as:

> an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon are not clearly evident…The case study inquiry copes with the technically distinctive situation in which there will be many more variables of interest than data points, relies on multiple sources of evidence and benefits from the prior development of theoretical propositions to guide data collection and analysis (p. 18)

Yin's (2009) definition clarifies and confirms the importance of the use of this research strategy in qualitative research, and supports the use of a case study in this project. The perspective of Yin is in line with the fundamental goal of a case study – obtaining detailed description of a phenomenon in its context utilising multiple data sources. This ensures that the phenomenon's exploration is not limited to one lens, but a variety of lenses that help understand the multiple facets of the phenomenon. Therefore, conducting a case study as the second phase of this project was deemed appropriate because not only did it help create knowledge and understanding of play and learning at the early years, but also served as evidence for the recommendation of applicable solutions.

Case study research can follow one of two major designs: single case design, where a single case is examined in details, or multiple-case design, where a number of cases are studied in-depth (Yin, 2009). Multiple case designs have all the advantages of a single case design in capturing phenomena in their natural contexts, however, repeating the procedures on multiple cases enhances the ability to expand and generalize to theoretical propositions (Yin, 2009). This

is because multiple case designs are considered to be somewhat similar to multiple experiments and thereby follow replication logic, where a study predicts similar results (literal replication) or contrasting results (theoretical replication; Yin, 2009). Furthermore, multiple case designs allow researchers to choose cases that are similar or different in order to examine and understand similarities and differences between and among the cases. This allows the identification of how the cases might be influenced by the context (Stake, 2006) and helps develop categories of how the cases might be related (Chmiliar, 2010). Thus, the results are more powerful than those from a single case, demonstrate the phenomenon across a wide range of perspectives (Chmiliar, 2010) and provide an opportunity to develop a better understanding of a phenomenon.

Although the evidence created from multiple case designs is considered robust, conducting a multiple case study is extremely time consuming and expensive (Cohen et al, 2007). Nonetheless, given its advantages, it was considered the appropriate type of case study for this study. Hence, a multiple case study was selected as an exploratory follow-up to the quantitative phase. The multiple cases helped examine different perspectives about play and learning.

4.3.2 Designing the Multiple Case Study

In designing a case study, Yin (2009) suggests that researchers develop a plan that specifies (a) the case, (b) selection of cases and sample, and (c) sources of data. These components of designing the case study are imperative and are therefore discussed in the sections below.

4.3.2.1 The Case

Identifying the 'case' is an essential part of the case study design (Yin, 2009). To do this, it is necessary to define "what a case is". The methodological literature on case study provides little consistency in the answer to this question. However, my understanding of a case falls in line with Stake's (2006) description. According to Stake (2006), a case is a bounded system located in its special contexts. This bounded system may be as simple as a single individual or group, or as complex as a neighbourhood, institution or an organization. Therefore, in this qualitative case study, the 'case' is defined as an identified early years class in Ghana about which some initial

information (play-learning beliefs) from its stakeholders would have been sought during the quantitative research phase.

Having identified the case, it is important to draw boundaries around it as reflected in Stake's (2006) description – bounded system. This is because early years classes are complex environments that offer open-ended areas for research study in relation to play and learning. Defining the bounded system has been discussed by many scholars. In determining the breadth and depth of the case, some case study methodologists stress the importance of following intuitions when in the field and bounding the case as the study unfolds, while other methodologists presume early bounding of the case before proceeding to collect data. For example, Goetz and LeCompte (1984) note that researchers should determine the groups for which the research question is appropriate and the contexts that are potentially associated with the questions. Similarly, Miles and Huberman (1994) recommend early bounding of the case and suggest the use of research questions as a guide. On other hand, Ragin (1992), for example, argues that researchers cannot really bound their cases until most aspects of the empirical study are complete.

The process of bounding the 'case' for this study fell somewhere in the middle of the two extreme orientations. In other words, specifying the boundaries of the case did not imply a static imposition. Pre-bounding it however ensured the case remained in a reasonable scope and focus. Based on the research questions, the boundaries of the case involved an examination of the early years curriculum to identify the representation of play and the extent to which it is evident in the early years classes. Furthermore, the boundary extended to the examination of the perspectives of stakeholders (who were the embedded unit of analysis) on play and learning. Hence, there were multiple embedded units of analysis. For each early years class (case), the embedded unit of analysis was the stakeholders (parent, teacher and head teacher).

4.3.2.2 Selection of cases and Sample

Contrary to survey research, cases for a multiple case design are ideally selected strategically rather than randomly (Bleijenbergh, 2009**).** As a guide to the case selection, Stake (2006) suggests three criteria: "is the case relevant to the phenomenon? Do the cases provide diversity across context? Do the cases provide good opportunities to learn about complexity and contexts?" (p. 23). Being guided by these criteria, the cases were selected.

First, the phenomenon of interest is play. This form of learning is typically considered as the way of learning in early years education. Therefore, the characteristic nature of play as a means of learning at the early years justifies the selection of early years classes as the 'cases' studied. The cases selected were directly related to the phenomenon (play) being investigated. Following the multiple case design, four cases (early years classes) were selected.

To understand how play and learning are constructed, it was necessary to study not only those classes that support play as a form of learning, but also those that do not. The addition of a comparison sample of cases that do not support play as learning may help reveal intra-cultural differences and variations about play and learning. Thus, based on the survey scores, theoretical sampling – selection of cases to develop understanding of the area of investigation (Cohen et al, 2007) – was used to select two groups of cases: classes with high regard for play and classes with low regard for play. All the settings were ranked and cases selected from upper and lower quartiles. Examining and comparing both group of cases was important for gaining a more comprehensive understanding of play and learning and potential similarities and differences among the cases as well as identifying factors that contribute to, or serve as barriers to play. A total of four early years classes were selected across the two regions (two from each region). The sample included cases from both rural/urban public and private settings. Each case comprised 2 parents, 2 teachers and the head teacher. However, for one of the cases, only one parent was available. This created a total of 7 parents, 8 teachers and 4 head teachers across the two regions.

4.3.2.3 Sources of data

The hallmark of case study research is the opportunity to collect data from multiple sources, a strategy which enhances the credibility and validity of the study (Yin, 2009). The use of multiple sources of evidence allows a researcher to address a broader range of issues about the phenomenon. However, the most important advantage of using multiple sources of evidence in case study research, as acknowledged by Yin (2009) is the "development of converging lines of inquiry" (p. 115). This process of convergence using several data collection methods aimed at corroborating the same phenomenon is referred to as data triangulation (Patton, 2002). The data sources for this study were interviews, photographs, document, and observation. Each data source contributed to an in-depth understanding of play and learning. This convergence strengthened the findings as each strand of data came together to promote a comprehensive understanding of the phenomenon. Table 4.3 sets out how the different data sources linked to particular things examined in the case (the specific research questions).

Documents play an explicit role in case study data collection (Yin, 2009) and can include a range of materials related to the case being studied (Merriam, 1998). According to Oslon (2010), the use of documents within a case study must contribute to the aim of the project in order to add to the flow of the knowledge being produced. With early years classes as the cases, the early years curriculum was of relevance as a data source. The curriculum was examined to determine the extent to which it recognises and supports play as learning and the forms of play activities outlined in it. This is because as a policy context, it influences the organisation of daily activities for the children and can impact stakeholders' beliefs and the extent to which they might encourage, support and resort to play (Wood, 2004**).** Examining it was therefore part of examining the institutional context in which play and learning occur.

Another important source of case study information is interview (Yin, 2009). It provides an opportunity to understand the experiences of other people and the meaning they make from such experiences. For this study, those experiences were accessed using semi-structured interview or

in-depth interview. This type of interview uses open-ended questions based on the study's central focus which are developed before data collection to obtain specific information and enable comparison across cases; it remains open and flexible so that each participant's responses are probed further (Knox & Burkard, 2009). The researcher thus asks all participants the same questions, but may pursue in more details particular areas that emerge for each participant (Gillham, 2005) and may also vary the order in which the questions are asked. The rationale to adopt semi-structured interviews lies in its ability to give participants the opportunity to describe their experiences and beliefs of play and learning in their own words. Through the interview, an understanding of how each participant describes play, learning and the relationship between them, the role and importance of the different types of play in children's learning, as well as the adult's role in children's play was uncovered. In this manner, important insights into play and learning were revealed and helped identify similarities and differences, which emerged between and across the cases.

Although interviews are an essential source of case study evidence, they are subject to common problems of response bias and inaccurate articulation (Yin, 2009). Prior to the implementation of the research design, the interview data was to be corroborated with a photographic sorting task, which (Howard, 2002) describes as Activity Apperception Story Procedure (AASP). The activity is a two-part procedure that has been used to examine children's perceptions about play. The first part of the procedure required children to post photographic stimuli into boxes labelled as either play/work or learning/not learning. The second part involved a discussion with children to justify their choices for a smaller number of the photographs. This method, which has generally been used with children, was to be adapted to elicit parents', teachers', head teachers' perceptions of play and learning. The photographs were to be taken by the teachers and would have comprised different photographic stimuli that depict different early years classroom scenarios. However, during the process of piloting the qualitative data collection procedure, the teachers were reluctant in taking the photographs. Their reluctance to take the photographs resulted in a change in the use of this data source. Instead of the teachers taking the photographs

and the stakeholders sorting them into different conditions, the researcher took the photographs. The photographs were used as another angle from which to understand the nature of the early years classrooms. It was therefore used to corroborate the observation data.

Cohen et al (2007) suggest that the type of observations available to researchers lie on a continuum and range from unstructured, semi-structured to structured data collection activities. For this project, a semi-structured observation was used. In this type of observation, a researcher has an outline of issues but organises data to illuminate these issues in a far less predetermined manner. This form of observation was therefore considered useful in providing additional information to help understand the actual use of play in the early years classroom. Information provided in the curriculum about play was compared with classroom practice to determine the degree to which there is a match between the curriculum's proposition on play and what is evident in the early years classroom. Furthermore, the observation data helped shed light on how the constructed views of the teachers were related to classroom practice. Despite the strength of observation in supplementing information obtained from the other sources (Foster, 1996), there is the challenge of observer effect (Cohen et al, 2007), wherein participants change their behaviour because they are being observed. However, this effect was anticipated to reduce overtime during the period of data collection when participants may have become acclimatised with the researcher's presence.

Table 4.3. How different qualitative data sources addressed specific research questions

Research Questions	I	P	D	O
How is play represented in the curriculum and to what extent is it fulfilled?			×	×
How do parents, teachers, and head teachers describe play and learning?	×			
How do parents, teachers and head teachers perceive the role and importance of the different types of play in children's learning?	×			
How do parents, teachers and head teachers perceive their role in children's play?	×			
How do the teachers' views relate to classroom practice?		×		×

Note. I: Interview, P: Photographic stimuli, D: Document, O: Observation

4.3 Summary

Before presenting the process of the scale development, pilot study and scale validation, a summary of the key features of each component of the methodology is provided in Table 4.3.

Table 4.4. Key features of each research methodology

Methodology	Design	Sampling	Sample	Method
Quantitative	Survey Design	Stage Sampling	A total of 40 schools from two regions 320 Participants (160 parents, 120 teachers, 40 head teachers)	Self-developed Questionnaire (Early Years Play and Learning Perception Scale)
Qualitative	Multiple-case study	Theoretical Sampling	Four early years classes 19 Participants (7 parents, 8 teachers, 4 head teachers)	Interview Document Photograph Observation

CHAPTER FIVE

IMPLEMENTING THE PREPARATORY PHASE

SCALE DEVELOPMENT AND VALIDATION

This chapter of the thesis is focused on the processes involved in the construction of the survey scale used for the quantitative data collection. It discusses the reason for the scale development, how it was developed, the pilot study and the process of validating the scale.

5.1 Why develop a scale to measure play and learning perceptions?

The play literature contains particularly relevant works on people's perceptions of play. Typically, these beliefs have been assessed through interviews or the use of questionnaires or rating scales. An examination of relevant studies revealed the existence of some rating scales, which have been used to assess beliefs about play. Some of these scales, for example Cooney's Play Survey (Cooney, 2004) and Powell's Play Survey appear to be general measures of play beliefs, but they have not been validated. Moreover, existing validated scales, examples of which include Parent Play Belief Scale (Fogle & Mendez, 2006), Preschool Play and Learning Questionnaire (Parmar, Harkness and Super, 2004), are specific measures developed to examine perceptions from the perspectives of parents only. Consequently, some of the items in these scales – for example, "I do not think it is important for other family members to play with my child", "Parents should teach their children school-related skills at home every day" – limit their applicability to a range of adults, including teachers and head teachers. Together, these limitations highlight the need for a new scale.

5.2 Scale development

5.2.1 Purpose of the scale

The primary purpose of the instrument is to measure stakeholders' (parents, teachers and head teachers) perceptions of the role and importance of play in early years children's learning. The instrument is designed with a focus on the relationship between play and learning for early years

children (3 to 5 years old) and is intended to be a general measure of play-learning beliefs. The scale is referred to as the Early Years Play and Learning Perception Scale (EYPLPS).

5.2.2 Construct conceptualisation and test specifications

A deductive scale development method, as recommended by Clark and Watson (1995), was utilized. First, play domains were conceptualised as a multidimensional construct that serve learning and other functions for early years children. Following this, an initial pool of potential scale items reflecting issues raised by the research literature discussed was generated. In particular, items were generated to reflect existing theory and research on play, as described in the literature review and sociocultural perspectives on play (Chapters two and three; classical and modern theories; sociocultural perspectives on play – cultivated, accepted and curtailed play).

With existing theories and research on play as a guide, item development began whereby an initial item pool of 40 items was generated, with approximately 20 items to represent *learning functions of play* and 20 to represent *other functions of play*. Starting with 40 items allowed flexibility for making decision about which items to remove. To improve the ease and speed of administration, the 40-item pool was carefully examined and 15 items were deleted. These 15 items were found to be either unrelated to the purpose of the instrument development or overlapping with other items. An example of an overlapping item that was deleted was "children should primarily learn through play". It was deleted because this item was found to be similar in meaning to "play should be a major aspect of early years education". Again, an item that was deleted because it was found to be unrelated to the purpose of the instrument development was "children should have toys that are just for fun". This item does not communicate the role of play in children's learning.

5.2.3 Item construction

A Likert scale format was chosen for the instrument. This is because Likert-type items are mostly recommended when measuring less-concrete concepts such as beliefs and attitudes

(Siniscalco & Auriat, 2005; Sullivan & Artino Jr, 2013). Moreover, Clark and Watson (1995) point out that Likert scales can be "more reliable, give more stable results and produce better scales" (p. 316). A five-point Likert scale was chosen because it offers a neutral choice for participants (Siniscalco & Auriat, 2005). Each item in the pool was a statement prompting participants to rate their level of endorsement by assigning the statement a number of either 1 (1= Strongly Disagree), 2 (2= Disagree), 3 (3= Neither Agree or Disagree), 4 (4= Agree) or 5 (5=Strongly Agree). Almost all the items were positively worded phrases that were free from ambiguity.

5.2.4 Item Review

The 25-item scale was made of 14 items representing *learning functions of play* and 11 items representing *other functions of play*. The scale was reviewed by six experts and edited to produce a refined, more appropriate final version. Four of the experts held doctoral degrees and two of them were Professors of Education. All the experts were researchers whose research interests included play and learning in early childhood. The experts were asked to evaluate the 25 items for content validity, that is, the appropriateness of individual items for meeting the purpose of the scale. Other expert considerations included the use of language and technical jargon, double-barrelled questions, difficulty level and item placement (Clark and Watson, 1995). Feedback from the expert review was used to make improvements to the scale. For example, some of the items were rephrased in order to make them clear and precise (See Table 5.1).

Table 5.1. Scale wording changes: Expert Reviewer Feedback

Item	Wording Change
Play is just something to keep children happy	The main purpose of play is for children to be happy
Play is simply a way to keep children busy	The primary purpose of play is to keep children busy
Mathematical and scientific concepts are best learnt through play	Play is a very good way children learn mathematical and scientific concepts
Play is the best way children learn to acquire creative problem-solving skills	Play is a very important way children learn to acquire creative problem-solving skills
Play is a significant aspect of early years children's education	Play should be a significant aspect of early years education

5.2.5 The Pilot Study

The 25 items that were reviewed by the experts underwent a pilot study to test the items (See Table 5.2). Using a systematic random sampling, 10 schools were selected from a district in the Accra metropolitan area. Using a list of 200 registered schools, every twentieth school was selected. Following this, 15 children (for each school) were selected from a class list using a simple random approach and the parents of the selected children formed the parent sample. The random sampling was done by drawing children's names from a container until the required number was reached. The same random sampling approach was used to select 6 nursery and kindergarten teachers. In addition, the head teachers of each of the schools were selected. In all, a total of 220 surveys (150 parents, 60 teachers and 10 head teachers) were distributed for the pilot study. Out of the number distributed, 67 were received from parents, 40 were received from teachers and 10 from head teachers, yielding a subgroup response rate of 45%, 67% and 100% respectively. In all, a total of 117 surveys were received, representing 53% response rate. Participants included 51 males and 66 females. Table 5.3 shows the breakdown of participants' age characteristics. Once the survey was completed, 10 participants (five teachers and five head teachers) were asked to provide item-specific comments and suggestions for instrument

improvement (e.g. strange words, unclear statements) in a brief interview session. Through this debriefing, the item “Play should be a significant aspect of early years education” was rephrased to “Play should be a major aspect of early years education. This is because some participants suggested that depending on their level of formal education, some parents might not easily understand the word ‘significant’.

Table 5.2. The Piloted Early Years Play and Learning Perception Scale (EYPLPS)

Statements	**Strongly Disagree**	**Disagree**	**Neither Agree or Disagree**	**Agree**	**Strongly Agree**
1. Play is the best way children learn to understand the world around them	1	2	3	4	5
2. Play and learning are two separate things	1	2	3	4	5
3. Play is an important activity for children to learn to be independent	1	2	3	4	5
4. Play is an activity children do mainly to make them relax	1	2	3	4	5
5. Play is essential for children’s learning	1	2	3	4	5
6. The main purpose of play is to make children happy	1	2	3	4	5
7. Play is a very important way children learn to acquire creative problem-solving skills	1	2	3	4	5
8. Play should be a major aspect of early years education	1	2	3	4	5
9. The primary aim of play is to release children from boredom	1	2	3	4	5
10. Play is a very good way children develop their language skills and abilities	1	2	3	4	5
11. The primary purpose of play is to keep children healthy	1	2	3	4	5
12. Through play children learn to manage and control their emotions	1	2	3	4	5
13. The main aim of play is for children to have fun	1	2	3	4	5
14. Play is a very good way children learn mathematical and scientific concepts	1	2	3	4	5
15. The main purpose of play is for children to restore lost energy	1	2	3	4	5

Table 5.2 continued

Statements	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
16. Play is an important activity for children to develop their cognitive abilities and thinking skills	1	2	3	4	5
17. The main goal of play is to keep children busy	1	2	3	4	5
18. Children learn social skills primarily through play	1	2	3	4	5
19. Play is learning time for early years children	1	2	3	4	5
20. The primary purpose of play is to refresh children	1	2	3	4	5
21. Play is an important activity for children to learn to be imaginative and creative	1	2	3	4	5
22. Play is a very good way children develop and acquire academic skills such as pencil control and writing	1	2	3	4	5
23. The primary purpose of play is for children to get pleasure	1	2	3	4	5
24. Play is a form of learning	1	2	3	4	5
25. The main purpose of play is for children to release excess energy	1	2	3	4	5

Table 5.3 Participant Characteristics (Age)

Participant	*N*	Mean Age (SD)	Age Range
Teachers	40	33.2	20-52
Males:	18	35.72 (7.78)	
Females:	22	31.13 (7.29)	
Parents	67	34.84	21-57
Males:	28	36.57 (6.30)	
Females:	39	33.59 (6.31)	
Head teachers	10	40.7	30-49
Males:	5	41 (6.78)	
Females:	5	40.4 (6.89)	

5.3 Validating the Scale

5.3.1 Analytic Approach

Background to Statistical Model – Item Response Theory

The primary statistical analysis applied to the data was item response theory (IRT). Briefly, IRT is a probabilistic model that attempts to explain a person's response to scale items (questions) given the level of the latent variable (θ) being measured (De Ayala, 2009). Latent traits are constructs that are assumed to exist but cannot be directly measured by a single observable item. Instead, they can be measured indirectly using multiple items (Reeve and Fayers, 2007), and include constructs such as attitudes, beliefs, and intelligence. The basis of IRT analysis is the item characteristic curve (known as boundary characteristic curve [BCC] for multiple response items), which describes the relationship between the probability of endorsing an item on a scale based on the person's level on a latent variable (for this study, play-learning beliefs) and the characteristics of a particular item (discrimination and difficulty parameters) (Toland, 2014). IRT can therefore be used to evaluate the quality of individual items and scale as a whole, which can lead to short reliable scales.

The characteristics of a specific item (discrimination and difficulty) influence the shape and position of the curves. The first parameter, item discrimination (*a*), determines the steepness of the slope of the curve. It represents the capability of an item to differentiate among individuals at different levels of the trait continuum. Lower discrimination (*a*) values are associated with gradual slopes, but provide information over a wider range of the trait continuum. In contrast, higher *a*-values are associated with steeper slopes. The higher the *a*-value of an item, the more effective it is at differentiating among individuals, but over a small range of the play-learning belief continuum. For example, for the EYPLPS, items 22 has an *a*-value of 1.20, and item 10 has a value of 2.03. Although both values are relatively high, item 10 will have a steeper slope compared to item 22, but item 22 will be well spaced across the continuum and therefore

provide information over a wider range. Graphical representations of these items are provided in section 5.3.2.4.

The second parameter, which is the item difficulty (*b*), determines the position of the curve and has its roots in educational settings. In the context of educational settings it is related to how difficult a test item is and the probability of students who answer an item correctly. However, within the framework of this study, the 'difficulty' reflects the level of play-learning belief needed to have a 50% probability of responding in the associated category or higher category (for dichotomous items it is 50% probability of endorsing an affirmative response). This translates to the level of belief needed to have a 50% probability of responding in a category that suggests a disbelief in play as learning or a belief in play as a form of learning. As each item on the EYPLPS has five ordered response categories, there are 5 – 1 = 4 difficulty parameters (b_1 to b_4) and a boundary characteristic curve (BCC) is created for each difficulty parameter. A graphical representation of this and further details regarding the impact of the difficulty parameter on the position of the curves are provided in section 5.3.2.4.

The differences in the response probabilities between adjacent BCCs for varying levels of the play-learning belief are transformed into the category characteristics curves (CCC), which represent the probability of responding in a particular response category given an individual's level of play-learning belief (Toland, 2014). Like the BCC, the discrimination parameter determines the steepness of the curve, whilst the difficulty parameter determines the location of the curves. The CCC of an item is used to create an item information function (IIF), which represents an item's ability to differentiate among individuals through the amount of information provided over the range of the latent trait (Reise, Ainsworth, & Haviland, 2005). The difficulty parameter determines the location of the information function on the horizontal axis. Typically, items should be well spaced across the continuum of the latent trait. On the other hand, the discrimination parameter determines the magnitude of the information function on the vertical axis. More discriminating items have steeper curves. As a whole, items with

higher information represent more precision and vice versa (Reeve & Fayers, 2005). Importantly, IIFs can be used to identify items that provide less information to the scale and whether to remove them or keep them as part of the revised form. The IIFs for all the items can be added together to form the test information function (here the scale information function). The scale information function describes the precision of the whole scale and is useful in estimating how the scale functions completely in different trait ranges (Reise, Ainsworth and Haviland, 2005). Graphical representations are provided in section 5.3.2.4 to further explain these.

IRT analysis requires that two key assumptions be met. The first one is the assumption of *unidimensionality*. This assumption holds when the set of items measure a single latent construct (Embretson and Reise, 2000). In evaluating this assumption, output from factor analysis (eigenvalues) is examined. One should observe that item responses can be reasonably explained by single continuous variable, and if this condition is met, then the set of items can be deemed to display unidimensionality and therefore appropriate for IRT. The second assumption, *local independence*, means that there should be no association among the item responses when trait level is controlled (Embretson & Reise, 2000). One should look for low covariation among items in the residual matrix of the factor analysis, and if this condition is met, then the set of items can be considered to be locally independent and appropriate for IRT analysis. According to Field (2009), residuals values should be less than 0.05.

Following the assumption testing, items are calibrated using the IRT model appropriate for the data. In choosing the model for the data, consideration is given to the number of item response categories. In the context of this data, ordered polytomous IRT models, which are suitable for items with more than two response categories, were considered appropriate. Several ordered polytomous IRT models have been developed, but for this study, Samejima's (1968) Graded Response Model (GRM) was used. This model was selected because it is mostly used and most appropriate for Likert scales. Moreover, the GRM allows the number of ordered categories to

vary between items, without having to worry about zero responses in a particular category (Toland, 2014). The GRM estimates a discrimination (*a*) and difficulty parameters (*b*). For this data, the GRM estimated a discrimination parameter and four difficulty parameters (the number of categories [5-1] minus one). Two IRT models were estimated: the first was a constrained GRM that assumes equal discrimination parameter (*a*) for all items; the second was an unconstrained GRM that specifies unique discrimination parameters for each of the items. The suitability of these two nested models was examined to determine which model is a better fit using a likelihood ratio test, which is distributed as a chi-square using the difference in the number of parameters for the two models as the degrees of freedom for the test.

Information from the IRT calibration was used to evaluate items and scale properties to improve the scale. Items were evaluated in terms of their relevance for measuring play-learning beliefs, and the appropriateness of response categories. Together, the information helped to identify a short and reliable scale.

5.3.2 Results

5.3.2.1 Assessing inter-item consistency using Cronbach alpha

Table 5.4 shows the Cronbach alphas for each item and the scale. Cronbach alpha is a measure of the internal consistency of the scale items and provides evidence that the items of the scale are sufficiently inter-correlated and measure the underlying latent variable (Sullivan & Artino Jr, 2013). For this study, none of the items would substantially affect the scale's internal consistency if they were deleted. The worst offender is question 2: deleting this question would increase alpha of the scale from 0.8605 to 0.8646. However, item 2 was not removed for two reasons. First, eliminating it will not substantially increase alpha. Both values reflect a good degree of consistency and are within the acceptable range of 0.7 to 0.8 (Field, 2009). Second, removing an item at this stage will preclude gaining information about all items performance in the context of the entire scale. Consequently, all the items were retained for further analysis.

Table 5.4. Cronbach alpha for the 25-items scale (n =117)

Item	**Alpha (α)**
1. Play is the best way children learn to understand the world around them	0.8518
2. Play and learning are two separate things	0.8646
3. Play is an important activity for children to learn to be independent	0.8548
4. Play is an activity children do mainly to make them relax	0.8556
5. Play is important for children's learning	0.8570
6. The main purpose of play is to make children happy	0.8586
7. Play is a very important way children learn to acquire creative problem-solving skills	0.8549
8. Play should be a major aspect of early years education	0.8564
9. The primary aim of play is to release children from boredom	0.8536
10. Play is a very good way children develop their language skills and abilities	0.8508
11. The primary purpose of play is to keep children healthy	0.8554
12. Through play children learn to manage and control their emotions	0.8595
13. The main aim of play is for children to have fun	0.8559
14. Play is a very good way children learn mathematical and scientific concepts	0.8540
15. The main purpose of play is for children to restore lost energy	0.8566
16. Play is an important activity for children to develop their cognitive abilities and thinking skills	0.8500
17. The main goal of play is to keep children busy	0.8543
18. Children learn social skills primarily through play	0.8551
19. Play is learning time for early years children	0.8541
20. The primary purpose of play is to refresh children	0.8529
21. Play is an important activity for children to learn to be imaginative and creative	0.8545
22. Play is a very good way children develop and acquire academic skills such as pencil control and writing	0.8523
23. The primary purpose of play is for children to get pleasure	0.8545
24. Play is a form of learning	0.8594
25. The main purpose of play is for children to release excess energy	0.8590
Test Scale	**0.8605**

Note. α refers the alpha level reflecting internal consistency of the scale if an item is removed

5.3.2.2 Assessing dimensionality and local independence using factor analysis

The 25-items produced an acceptable Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (.76) and all KMO values for individual items were >.55, above the acceptable limit of .50 (Field, 2009). Bartlett's test of sphericity x^2 (300) = 1086.23, $p < .05$, indicated that items are correlated and appropriate for factor analysis. An examination of the eigenvalues from the factor analysis suggested a single factor, with the first value substantially higher than the others (5.70, 1.89, 1.72, 1.09, 0.92 etc.). However, following Kaiser's criterion of retaining factors with eigenvalues > 1, up to three factors could be extracted. The first solution, a two-factor Varimax (orthogonal) rotation, extracted the 14 items that represent learning functions of play in the first factor and the other 11 items that represent other play functions as the second factor. The second solution, a three-factor rotation, also distinguished the items that represent other play functions as the second factor and extracted two items with similar content ("the main purpose of play is for children to restore lost energy" and "the main purpose of play is for children to release excess energy") as the third factor. Since only two items were extracted for the third factor, a two-factor solution was considered the most appropriate. This solution explained 61.49% of the total variance. The items in each of the two factors are listed with their factor loadings in Table 5.5.

The correlation among the residuals of the items showed no significant association among the item responses. Residual values were mostly less than 0.05 (Field, 2009). This suggests that there was no excess item covariation among the item responses. Therefore, none of the items was removed at this stage of the analysis. Subsequently, the 25-item scale was determined as sufficient for IRT analysis.

Table 5.5. The 25-item pattern matrix

Items	Factor 1	Factor 2
1. Play is the best way children learn to understand the world around them	**.65**	.12
2. Play and learning are two separate things	-.21	**.38**
3. Play is an important activity for children to learn to be independent	**.51**	.16
4. Play is an activity children do mainly to make them relax	.13	**.47**
5. Play is important for children's learning	**.47**	.08
6. The main purpose of play is to make children happy	.19	**.30**
7. Play is a very important way children learn to acquire creative problem-solving skills	**.58**	.06
8. Play should be a major aspect of early years education	**.55**	.04
9. The primary aim of play is to release children from boredom	.22	**.60**
10. Play is a very good way children develop their language skills and abilities	**.62**	.19
11. The primary purpose of play is to keep children healthy	.11	**.59**
12. Through play children learn to manage and control their emotions	**.46**	.03
13. The main aim of play is for children to have fun	.10	**.68**
14. Play is a very good way children learn mathematical and scientific concepts	**.56**	.09
15. The main purpose of play is for children to restore lost energy	.00	**.60**
16. Play is an important activity for children to develop their cognitive abilities and thinking skills	**.73**	.14
17. The main goal of play is to keep children busy	.14	**.60**
18. Children learn social skills primarily through play	**.33**	.27
19. Play is learning time for early years children	**.50**	.19
20. The primary purpose of play is to refresh children	.33	**.45**
21. Play is an important activity for children to learn to be imaginative and creative	**.54**	.30
22. Play is a very good way children develop and acquire academic skills such as pencil control and writing	**.60**	.15
23. The primary purpose of play is for children to get pleasure	.29	**.45**
24. Play is a form of learning	**.44**	.12
25. The main purpose of play is for children to release excess energy	.06	**.36**
Eigenvalue	**5.70**	**1.89**
% of variance	**46.15**	**15.34**

Note: Extraction method: Principal Axis Factoring. Rotation method: Varimax (orthogonal)

5.3.2.3 IRT Calibration

The calibration of the 25-item scale with the constrained GRM (single slope for all items) resulted in a log likelihood value of 3011.07, whereas the unconstrained GRM (unique slope for each item) yielded a log likelihood value of 2964.89. Large values of the log-likelihood statistics denote a poorly fitting model. The difference between these two values is distributed as a chi-square, $\chi 2$ (24) = 92.35, $p < .005$ and is highly significant, suggesting that excluding the unique discrimination parameters for 24 items significantly detracts from the fit of the model. The likelihood ratio test therefore indicates that the unconstrained version of the GRM results in a better model-data fit. Consequently, the unconstrained GRM was considered as the more appropriate model for this item set.

5.3.2.3 Parameter Estimates

Table 5.6 reports parameter estimates from the unconstrained GRM. The standard errors associated with the parameter estimates are relatively high. This is because of the small sample size used for the IRT calibration, given that standard errors become smaller as sample size increases. Though there are not hard-and-fast guidelines regarding sample size requirements, general guideline suggests taking into consideration the purpose of the calibration. According to Edelen & Reeve (2007), larger sample sizes (n > 200) are required if the basis for IRT is to produce accurate individual scores, whilst smaller sample sizes of about 100 are required if the goal of IRT is to evaluate the properties of a questionnaire. Therefore, the sample size was relatively adequate, since it was used with the principal goal of evaluating the item properties (discrimination and difficulty parameters) of the questionnaire. As reported in Table 5.6, the discrimination parameter estimates ranged from 0.16 to 2.54, indicating considerable variation in item discrimination. An item with higher discrimination means the item can better differentiate among individuals with different play-learning beliefs. Questions such as “play and learning are two separate things” and “the main purpose of play is for children to release excess energy” have very low discrimination parameters (0.16 and 0.40, respectively), whilst the

highest values are observed for the questions, “develop their cognitive abilities and thinking skills” and “develop their language skills and abilities” (2.54 and 2.03, respectively). Therefore, the latter reflects a higher capability of differentiating among participants with respect to the other items.

The item difficulty parameter estimates (b_1 to b_4) are not spread out over the trait range. Most of the values are negative, indicating that very high beliefs are not needed to completely respond to the items. In other words, the item set as a whole seems most useful at discriminating among individuals who are less likely to support play as a way of learning. Furthermore, some parameters, particularly item 2, have large standard errors. This may be due to low selection frequency of the categories. In the difficulty range, item 2 (“play and learning are two separate things”) behaved differently with respect to the other items. It presents an extremely low estimate for the lowest category and high parameters for the higher categories, suggesting the participants found it easy to distinguish play from learning. In other words, they agreed play and learning are not the same.

Having focused on the numerical results of the IRT, the next section considers the graphical representations that further facilitate the interpretation of the parameter estimates.

Table 5.6. GRM item parameters (standard errors) for the 25-item EYPLPS

Abbreviated item content	***a***	***b*$_1$**	***b*$_2$**	***b*$_3$**	***b*$_4$**
1. Best way children learn to understand the world	1.86 (0.35)	-2.97 (0.57)	-1.84 (0.31)	-1.53 (0.26)	0.40 (0.17)
2. Play and learning are two separate things	0.16 (0.18)	-14.28 (16.19)	-1.69 (2.08)	-0.47 (1.17)	6.55 (7.62)
3. Children to learn to be independent	1.52 (0.29)	-2.68 (0.51)	-1.56 (0.28)	-1.21 (0.23)	0.25 (0.18)
4. Activity children do mainly to make them relax	0.85 (0.21)	-4.15 (1.05)	-1.56 (0.42)	-0.94 (0.32)	2.44 (0.61)
5. Play is important for children's learning	1.05 (0.25)	-4.35 (1.10)	-3.38 (0.80)	-2.46 (0.57)	0.56 (0.24)
6. Make children happy	1.30 (0.32)	-3.66 (0.91)	-3.34 (0.79)	-2.93 (0.65)	-0.80 (0.22)
7. Acquire creative problem-solving skills	1.32 (0.30)	-3.61 (0.84)	-3.24 (0.73)	-2.35 (0.50)	0.19 (0.19)
8. Major aspect of early years education	1.32 (0.26)	-3.33 (0.70)	-2.15 (0.42)	-1.58 (0.32)	0.60 (0.21)
9. Release children from boredom	1.23 (0.26)	-3.53 (0.77)	-2.52 (0.51)	-1.86 (0.37)	0.00 (0.19)
10. Develop their language skills and abilities	2.03 (0.42)	-2.81 (0.54)	-2.18 (0.39)	-1.72 (0.29)	-0.46 (0.15)
11. Keep children healthy	0.65 (0.21)	-5.87 (1.97)	-2.81 (0.90)	-1.98 (0.66)	3.16 (1.02)
12. Manage and control their emotions	0.49 (0.20)	-8.45 (3.65)	-6.51 (2.73)	-4.37 (1.80)	1.33 (0.65)
13. Children to have fun	1.10 (0.62)	-3.73 (0.93)	-2.67 (0.60)	-2.20 (0.49)	-0.05 (0.20)
14. Learn mathematical and scientific concepts	1.82 (0.35)	-2.46 (0.45)	-1.78 (0.30)	-1.59 (0.27)	0.88 (0.20)

Table 5.6 continued

Abbreviated item content	***a***	b_1	b_2	b_3	b_4
15. To restore lost energy	0.50 (0.19)	-4.69 (1.80)	-0.22 (0.39)	0.71 (0.47)	6.03 (2.32)
16. Develop their cognitive abilities and thinking skills	2.54 (0.52)	-2.90 (0.57)	-2.45 (0.43)	-1.79 (0.27)	-0.14(0.13)
17. The main goal of play is to keep children busy	0.52 (0.20)	-5.05 (1.99)	-2.28 (0.96)	-0.80 (0.49)	4.20 (1.69)
18. Children learn social skills primarily through play	0.91 (0.24)	-4.78 (1.35)	-3.68 (0.99)	-2.50 (0.65)	1.28 (0.37)
19. Play is learning time for early years children	1.35 (0.28)	-3.65 (0.80)	-2.57 (0.50)	-2.14 (0.41)	0.23 (0.19)
20. The primary purpose of play is to refresh children	1.38 (0.28)	-3.63 (0.80)	-2.22 (0.43)	-1.89 (0.37)	1.28 (0.28)
21. To learn to be imaginative and creative	1.73 (0.38)	-3.46 (0.81)	-2.81 (0.55)	-2.63 (0.49)	-0.38(0.16)
22. Develop and acquire academic skills	1.20 (0.24)	-2.69 (0.54)	-1.39 (0.30)	-1.09 (0.26)	1.24 (0.29)
23. Play is for children to get pleasure	1.30(0.26)	-3.70 (0.83)	-1.79 (0.36)	-1.55 (0.32)	1.17 (0.27)
24. Play is a form of learning	0.93 (0.24)	-4.39 (1.15)	-3.79 (0.96)	-3.21 (0.80)	0.34 (0.25)
25. Play is for children to release excess energy	0.40 (0.18)	-7.65 (3.66)	-3.14 (1.54)	-0.34 (0.52)	6.57 (3.09)

Note. Most of the item wordings have been abbreviated to minimise table space. IRT parameter estimates (*a* = discrimination parameter, *b* = difficulty parameter). Values in parentheses are item parameter standard error estimate

5.3.2.4 Graphical representation of the Scale and Item Properties

Boundary Characteristic Curves (BCC)

In Figure 5.1, IRT results are presented in terms of BCCs. The impact of the two IRT parameters (discrimination and difficulty parameters) can easily be observed in relation to each other for each item. Figure 5.1 displays BCCs for two of the 25-item play-learning scale. These items were selected to show how BCCs differ depending on the item discrimination and difficulty parameters. Item 10 has relatively high discrimination parameter (a =2.03) and item 22 has moderate parameter (a =1.20). The difficulty parameters associated with item 10 are all negative, whilst items 22 has three negative and one positive difficulty parameters.

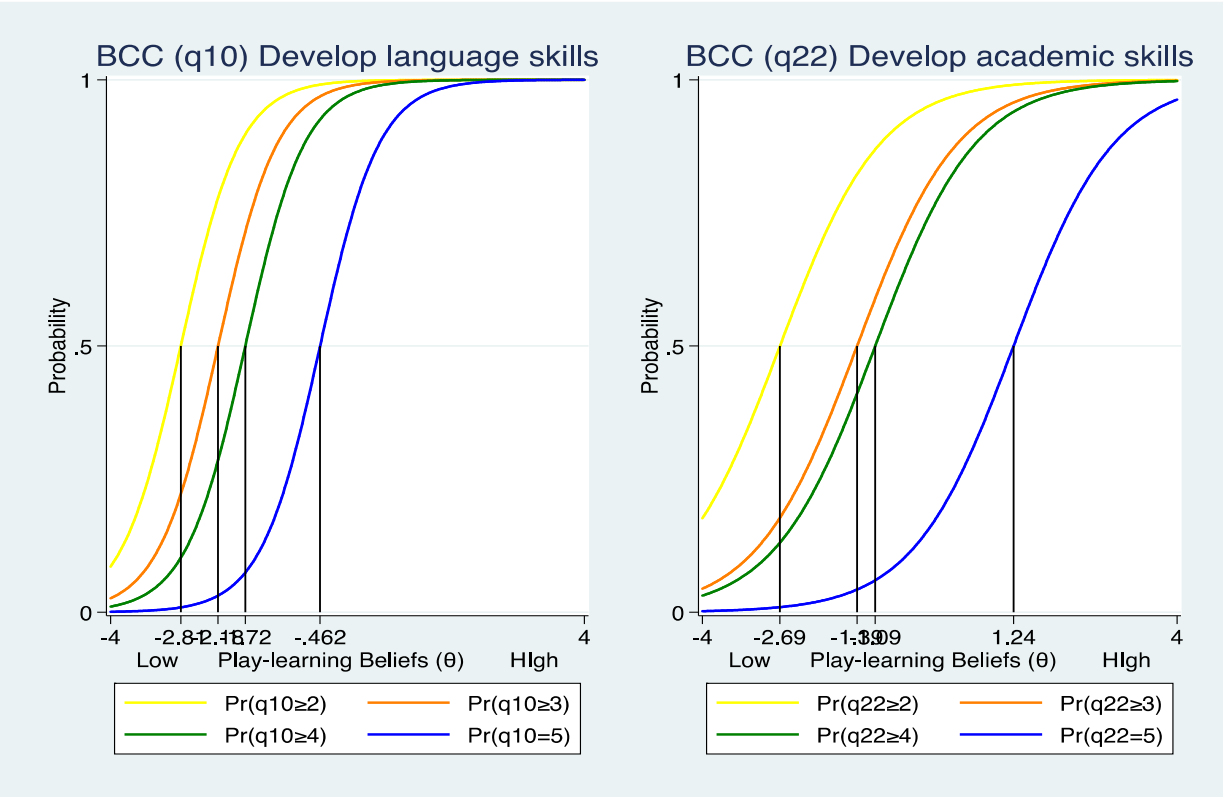


Figure 5.1. BCCs for two items with different slope and difficulty parameter values

Note. The horizontal axis represents the level of the latent trait and the vertical axis measures the probability of selecting a given response category at a specified latent trait level. Response categories 1 = Strongly Disagree; 2 = Disagree; 3 = Neither Agree or Disagree; 4 = Agree; 5 = Strongly Agree.

From Figure 5.1, it can be observed that the curves for item 10 are all located in the low or negative region, whilst one of the curves for item 22 extends to the high or positive region of the play-learning-belief continuum. This is because item 10 has only negative difficulty parameters, whilst item 22 has both negative and positive difficulty parameters. Clearly, changes in the

difficulty parameters move the BCCs left and right on the play-learning belief continuum. For item 22, a person with a play-learning belief (θ) of -2.69 (b_1) has a 50% probability of choosing to respond strongly disagree versus disagree, neutral, agree and strongly agree; a person with θ = -1.39 (b_2) has a 50% probability of choosing to respond strongly disagree and disagree versus neutral, agree and strongly agree; a person with θ = -1.09 (b_4) has 50% probability of choosing to respond strongly disagree, disagree and neutral versus agree and strongly agree; and finally a person with θ = 1.24 (b_4) has 50% probability of responding strongly disagree, disagree, neutral and agree versus strongly agree. A similar interpretation can be made for item 10 with difficulty parameters ($b_1 – b_4$) of -2.81, -2.18, -1.72 and -0.46. However, high play-learning beliefs will be required to endorse a high category for item 22 compared to item 10 (θ of 1.24 and -0.46, respectively).

Category Characteristic Curves (CCCs)

Figure 5.2 shows the CCCs for the two items in Figure 5.1. Each curve reflects the probability of responding in a particular response category as a function of a given level of play-learning belief (Toland, 2014). Noticeably, the curve associated with 'strongly agree' category for items 10 and 22 have a monotonic increasing trend meaning that the probability to select the option increases as play-learning belief increases. On the contrary, the alternative 'strongly disagree' has a monotonic decreasing trend, meaning the probability of completely disagreeing with the item approaches zero as play-learning belief increases. The intermediate response categories 'disagree, neither agree or disagree (neutral) and agree' have non-monotonic trend, increasing for low play-learning beliefs and decreasing on the rest of the domain. For a stakeholder with an average play-learning belief (θ = 0), the most likely category to be endorsed is *strongly agree* for item 10 with an estimated probability of .70, while the probability of endorsing in the other categories is .45 (*agree*), .01 (*strongly disagree*) and .02 each for (*disagree and neutral*). On the contrary, for item 22 the most likely category be endorsed is (*agree*) with an estimated probability of .60, while the probability of responding in the other categories is .10 (*strongly*

agree), .20 (*disagree*), .04 (*strongly disagree*) and .06 (*neutral*). In essence, what this means is that the probability of a stakeholder with an average play-learning belief (θ) to agree that children learn language skills through play is .95 compared to .70 probability of agreeing that children learn academic skills through play. Thus, a stakeholder will need a high level of play-learning belief in order to agree to the role of play in children's acquisition of academic skills.

Also in Figure 5.2, we see that the category curves for item 10 are steeper than those for item 22, given its high discrimination parameter value.

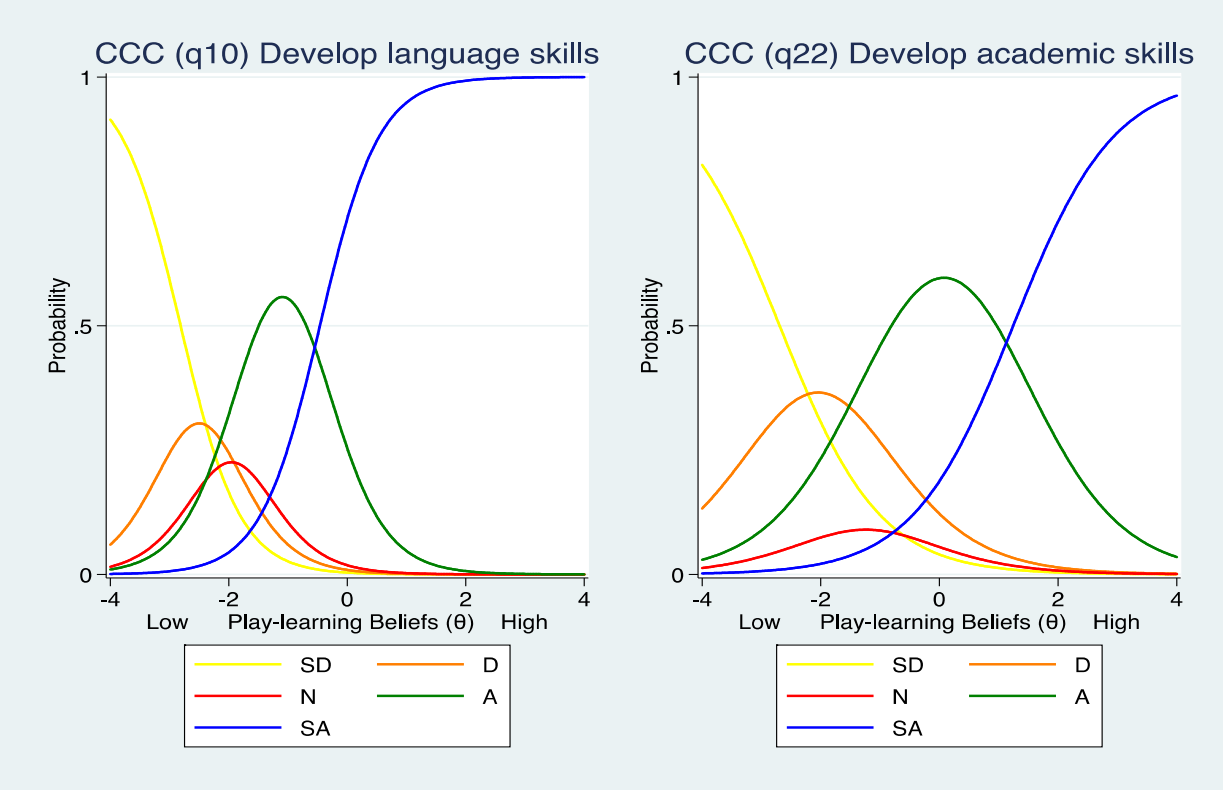


Figure 5.2. CCCs for two items with different slope and difficulty parameter values

Note. The horizontal axis represents the level of the latent trait and the vertical axis measures the probability of selecting a given response category at a specified latent trait level. SD = Strongly Disagree; D = Disagree; N = Neither Agree or Disagree; A = Agree; SA = Strongly Agree.

Figure 5.3 also shows the CCC for item 2. However, unlike items 10 and 22, the response curves associated with all the categories for item 2 are flat, given its near zero discrimination parameter estimate (a = 0.16), suggesting that it was a poor item yielding no psychometric information for the IRT model.

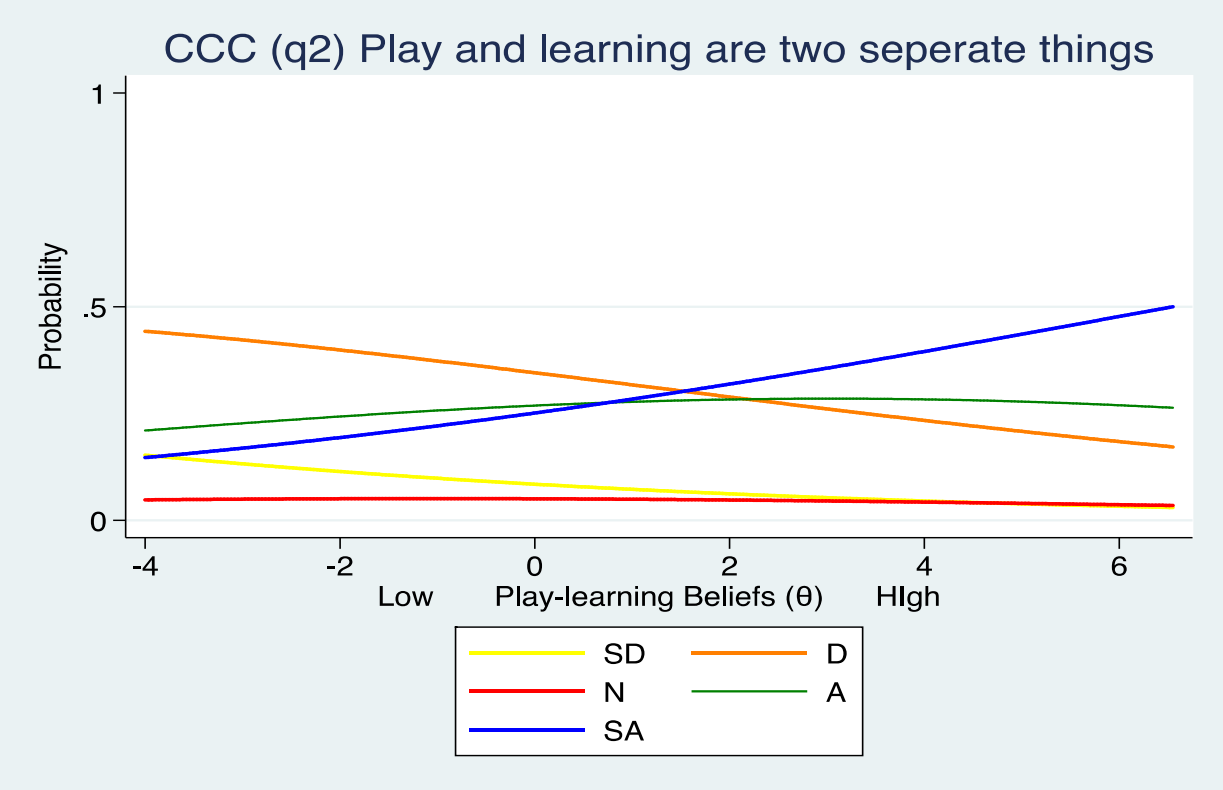


Figure 5.3. Category characteristic curve (CCC) for item 2

Note. The horizontal axis represents the level of the latent trait and the vertical axis measures the probability of selecting a given response category at a specified latent trait level. SD = Strongly Disagree; D = Disagree; N = Neither Agree or Disagree; A = Agree; SA = Strongly Agree.

Item Information Function (IIFs)

Figure 5.4 shows the IIFs for the three items illustrated so far (Q10, 22 and 2). Item 10 has the highest discrimination, and therefore reaches the maximum level of information among the three items. It provides the most information compared to items 22 and 2, suggesting that the item contributes more precision to the measurement of play-learning beliefs. However, item 22 is well spaced across the continuum.

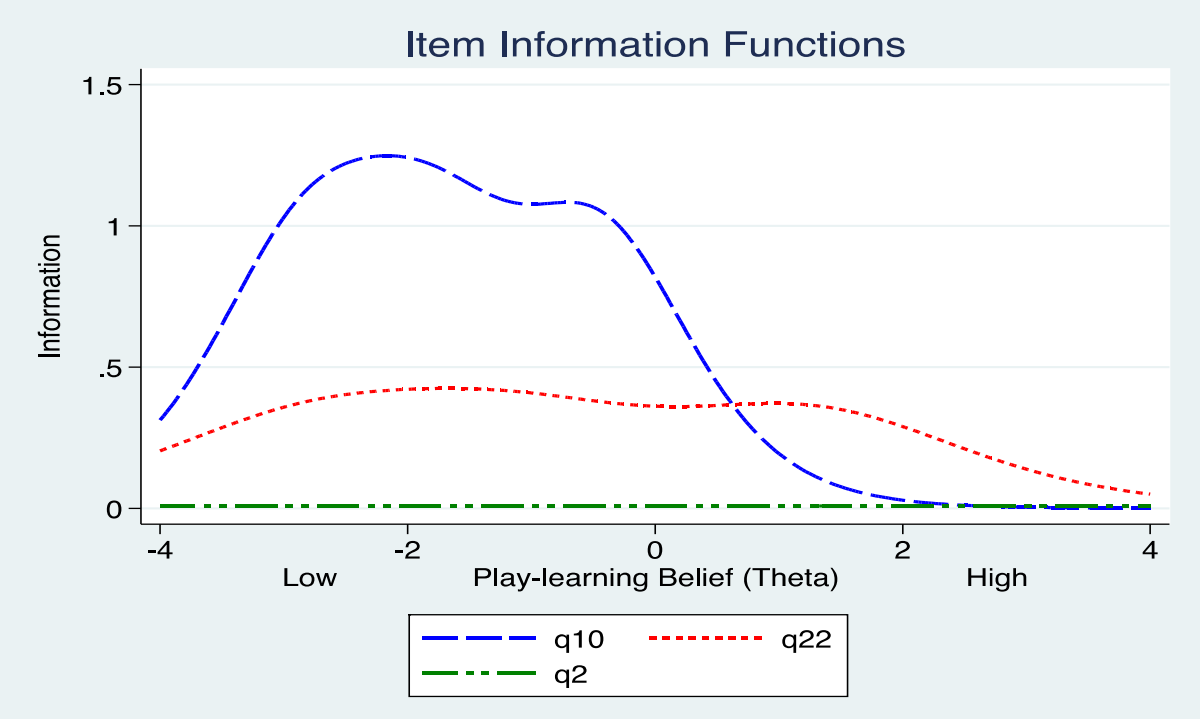


Figure 5.4. Item information curves for the three items indicated above

Note. Each item information function represents the amount of information provided by each item over the range of the Theta.

Scale Information Function

A graphical representation of the performance of the scale as a whole is presented in Figure 5.5. The scale information function plots a function of the standard error. The curve dips sharply at the end points where the play-learning belief items provide little information. The scale provides more information over the negative range of the play-learning belief continuum than the positive range. This suggests the scale provides more information about participants who believe play has a less important role in children's learning. Figure 5.5 clearly shows that the most information is provided by the scale around 2.5 to 3.0 standard deviations below the mean (0) on the continuum. This information is inversely represented by the standard error curve.

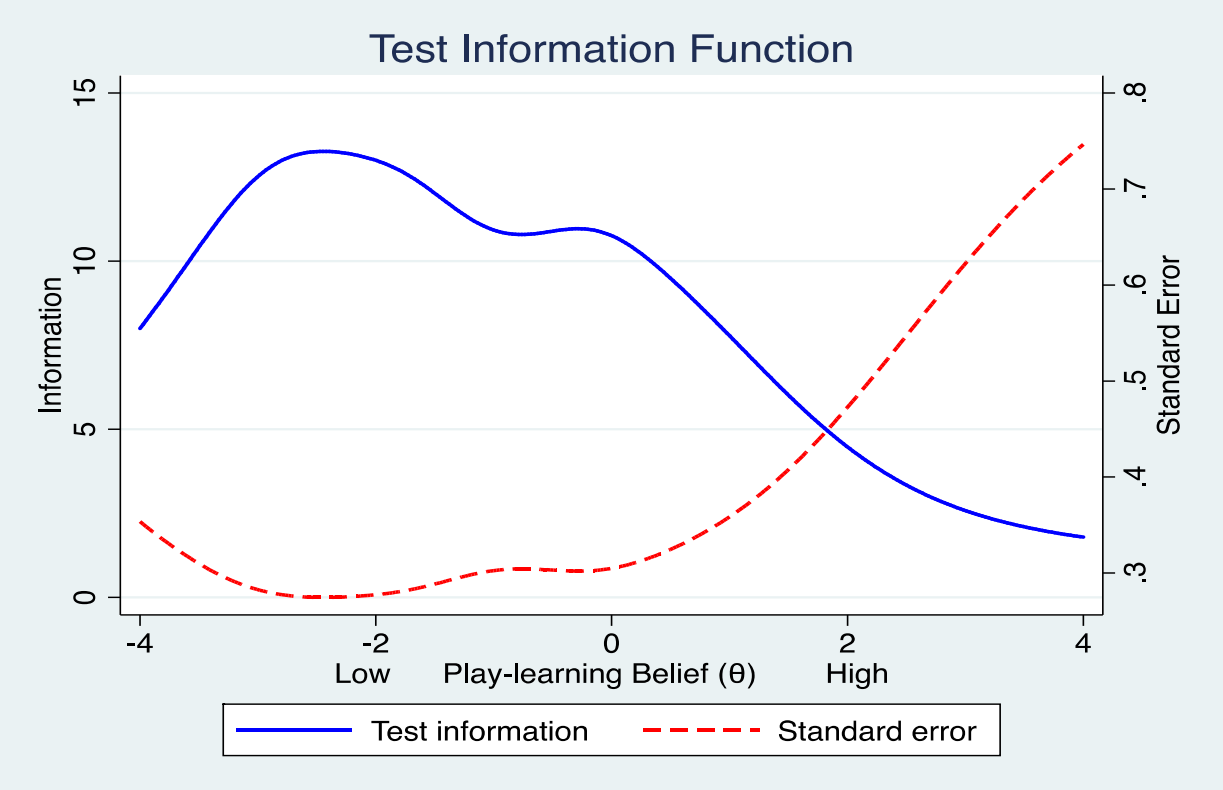


Figure 5.5. Scale information function for the 25-item play belief scale

Note: The horizontal axis represents the latent variable, play-learning belief. The left vertical axis represents the amount of information (precision) provided by the scale for a given score. The right vertical axis represents the expected amount of standard error around a score.

5.3.2.5 Short form selection

According to Toland (2014), the decision to select items can be made using the information provided by the item alone or together with the content of the item. Thus, in selecting items for the short form of the scale, the decision was made to use the information provided by each group of items – 14 items representing learning functions of play and 11 items representing other functions of play. The item information functions (IIFs) for all items were examined in groups (learning functions and other functions of play) and items with higher information in each group were retained. Although this selection yields a smaller proportion of items that represent other functions of play than in the long form, it was a result of the low amount of information provided by these items and the decision to use the item information alone. An examination of the IIF graphs, shown in Figures 5.6 and 5.7, for each group reflects the same asymmetry shown graphically in the TIF presented in Figure 5.5 above. Each group of items shows that more information is clustered at the negative region than the positive region. Items

with higher information were retained. The 14-item group that represents learning functions of play has the largest amount of information. From this item group, 11 items (1, 3, 7, 8, 10, 14, 16, 18, 19, 21, 22) were selected (indicated in solid lines in Figure 5.6). However, item 18 (children learn social skills primarily through play) provides a relatively moderate amount of information compared to item 5 (play is important for children's learning), but it was in the selected set. This is because item 5 is in similar meaning to item 19 (play is learning time for early years children). From the item set that represents other functions of play, five items (6, 9, 13, 20 and 23) were selected (indicated in solid lines in Figure 5.7). These five items combine to produce the maximum amount of information for this item set.

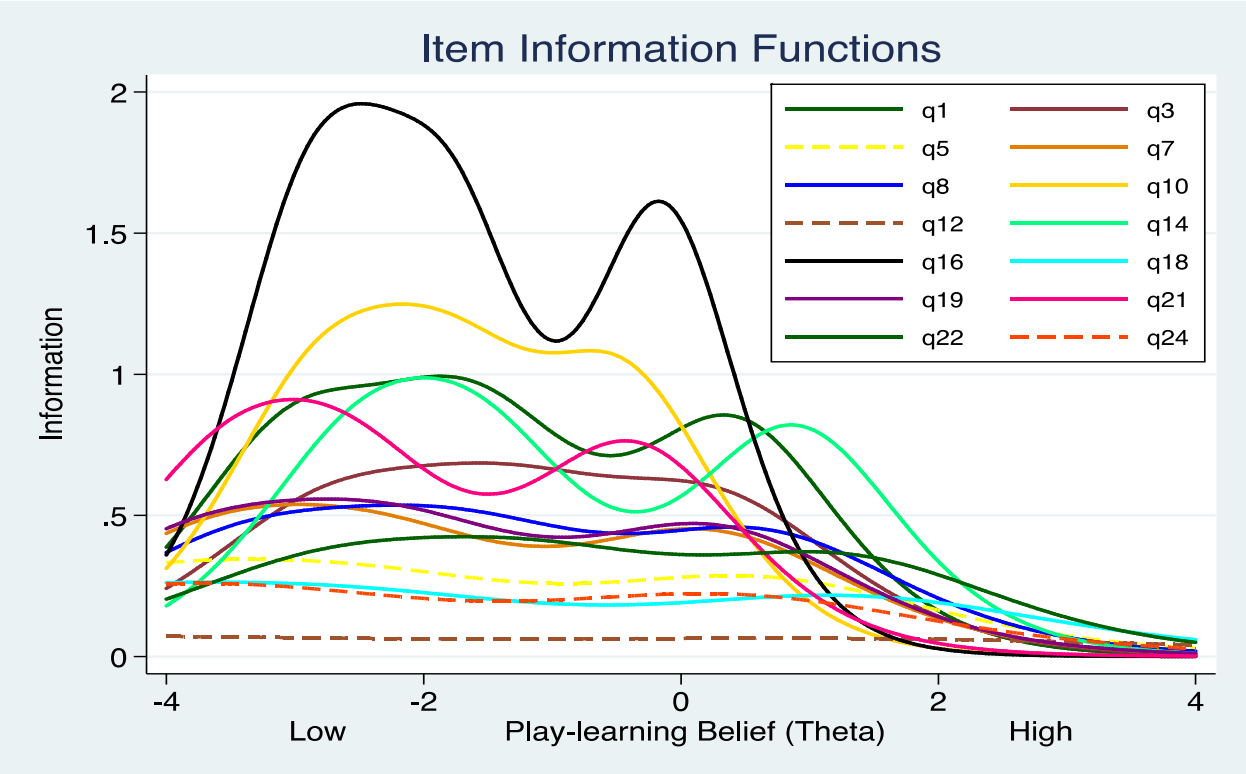


Figure 5.6. IIFs for the item set that represent learning functions of play

Note. Each item information function represents the amount of information provided by each item over the range of the Theta.

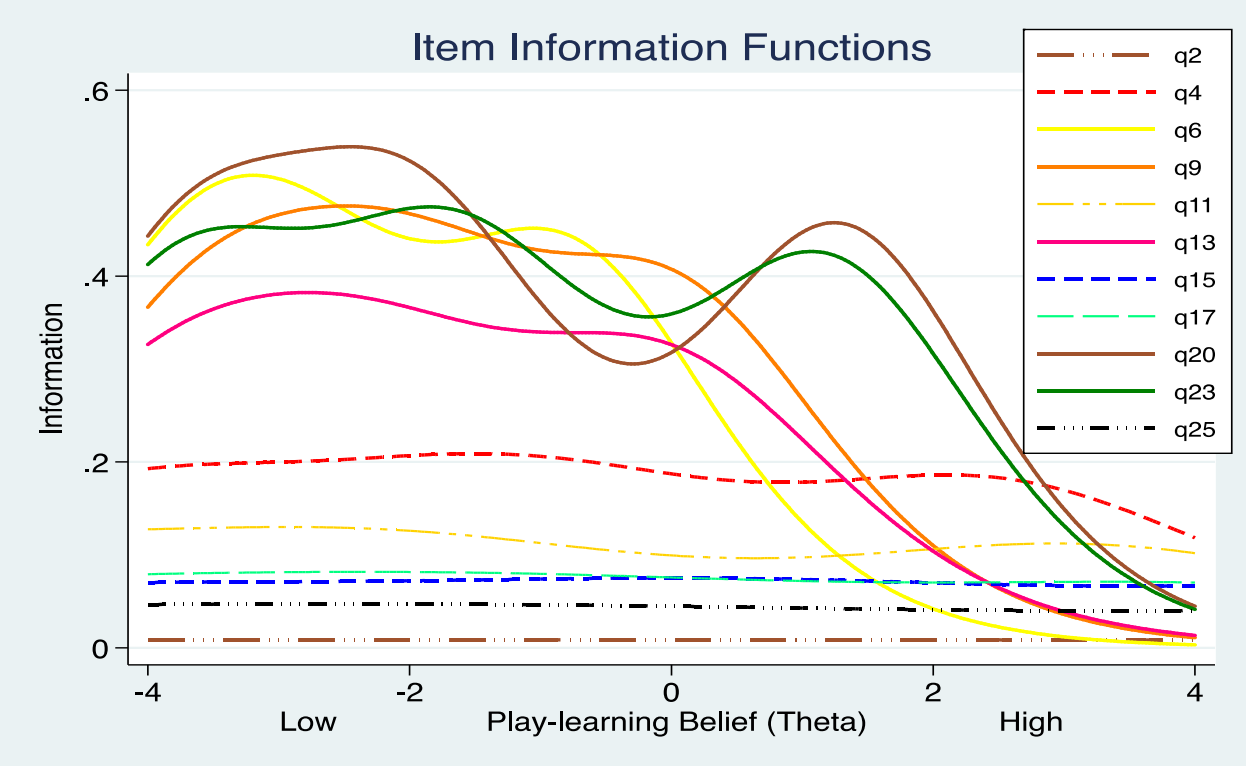


Figure 5.7. IIFs for the item set that represent other functions of play

Note. Each item information function represents the amount of information provided by each item over the range of the Theta.

5.3.2.6 Appropriateness of response categories

To evaluate the suitability of the 5-point Likert response categories, the category characteristic curves (CCC) of the items were examined. Figure 5.8 presents the CCCs for two of the items. For most of the items, the response category 'neither agree or disagree' is overshadowed by its neighbour categories. This response category was less informative than the other categories, suggesting this response option could be dropped in the revision of the scale.

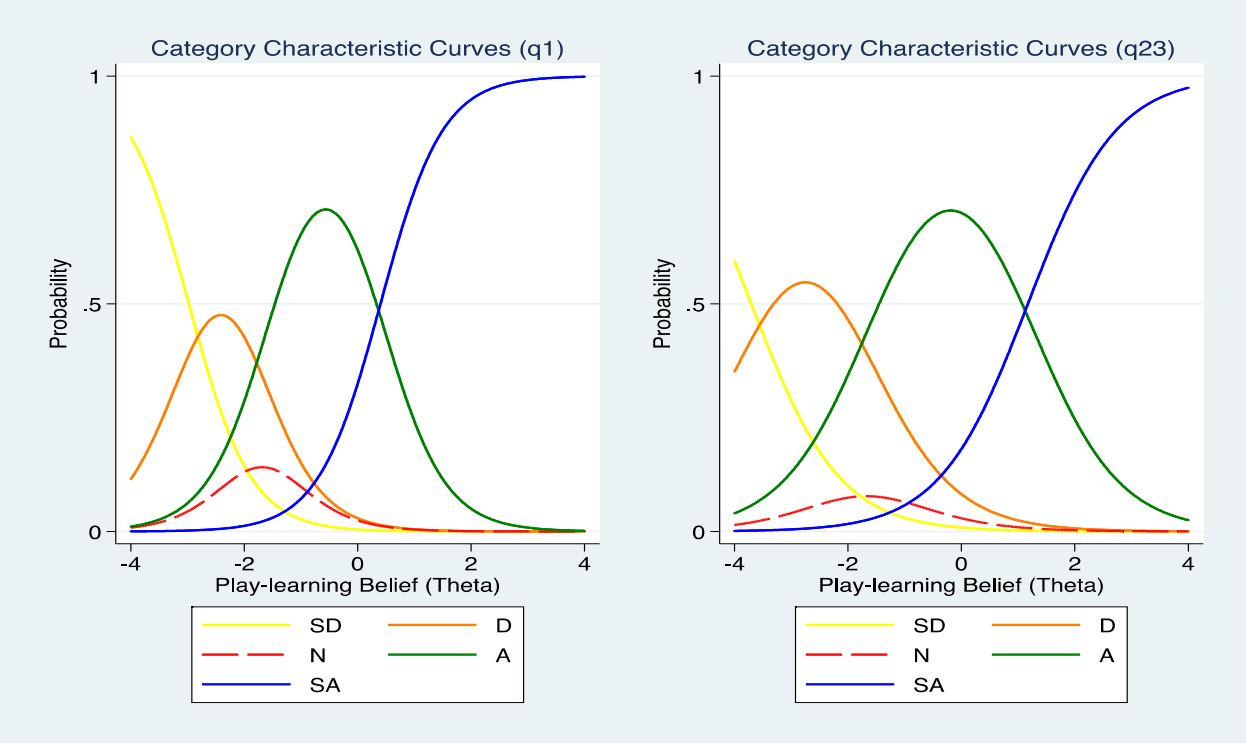


Figure 5.8. Category characteristics curves for two items of play-learning scale
Note: SD = Strongly Disagree; D = Disagree; N = Neither Agree or Disagree; A = Agree; SA = Strongly Agree. The response category 'neither agree or disagree' is shown in a long dash pattern.

5.3.2.7 The revised scale

In all, a total of 16 items were retained (See Table 5.7). The revised scale was rated on a 4-point Likert scale, given the under utilisation of the neutral category. The internal consistency reliability (Cronbach's alpha) of the revised scale was re-run using the data from the pilot study. The scale had a Cronbach's alpha reliability of .852, which is relatively high. Although there was a loss in reliability from the 25-item scale to the 16-item scale, the loss is less than .010. This suggests that the 16-item form is a reliable measure of play-learning beliefs and appears to maintain adequate measurement precision.

Table 5.7. Revised Early Years Play and learning Perception Scale

Statements	**Strongly Disagree**	**Disagree**	**Agree**	**Strongly Agree**
1. Play is the best way children learn to understand the world around them	1	2	3	4
2. Play is an important activity for children to learn to be independent	1	2	3	4
3. The main purpose of play is for children to have fun	1	2	3	4
4. Play is a very good way children learn mathematical and scientific concepts	1	2	3	4
5. Children learn social skills primarily through play	1	2	3	4
6. Children should play mainly to release boredom	1	2	3	4
7. Play is an important activity for children to learn to be imaginative and creative	1	2	3	4
8. Play is an important activity for children to develop their cognitive abilities and thinking skills	1	2	3	4
9. The main purpose of play is to refresh children	1	2	3	4
10. Play is a very good way children develop and acquire academic skills such as pencil control and writing	1	2	3	4
11. Play is learning time for early years children	1	2	3	4
12. The main purpose of play is for children to get pleasure	1	2	3	4
13. Play is a very important way children learn to acquire creative problem-solving skills	1	2	3	4
14. Play is a very good way children develop their language skills and abilities	1	2	3	4
15. The main purpose of play is to make children happy	1	2	3	4
16. Play should be a major aspect of early years education	1	2	3	4

5.3.2.8 Computing a total score

Just as the initial 25-item scale consisted of two groups of items, the final 16-item revised scale was also made up of two groups of items: 11 items that represent *learning functions of play* (items 1, 2, 4, 5, 7, 8, 10, 11, 13, 14 and 16) and 5 items that represent *other functions of play* (items 3, 6, 9, 12 and 15). The process of computing a total score for each participant involved three steps. First, each item was assigned a score of 1 = strongly disagree, 2 = disagree, 3 = agree or 4 = strongly agree, which reflects the extent to which a participant disagreed or agreed with the item. It is important to note that none of the items was reverse-scored. The second step involved creating a total sub score for each group of items (learning functions and other functions of play) by adding the score for the individual items in each group. The third step involved calculating a total score for each participant. To get the total score, a scoring system was developed so that high scores indicate a high belief in play. To do this, the sub score of the items that serve *other functions of play* was subtracted from the sub score of the items that serve *learning functions of play.* For example, a person with a uniformly very high belief about the role of play in learning would strongly agree with all learning functions statements (11 x 4= 44) and strongly disagree with all other function statements (1 x 5= 5), creating a score of (44-5 = +39). At the other extreme, a person who has a uniformly very low belief about the role of play in children's learning would strongly disagree with all learning functions statements (11 x 1= 11) and strongly agree with all other functions statements (5 x4 =20), creating a summary score of (11-20 = -9). Thus, individual total scores on the scale could range from +39 to -9, based on the extent to which participants agreed or disagreed with the two groups of items on the scale, with higher scores indicating a high play-learning belief.

5.4 Summary

The survey scale, referred to as the Early Years Play and Learning Perception Scale (EYPLPS) was developed to improve upon existing survey scales used to assess beliefs about the importance of play in children's learning by providing a general measure of play beliefs that can

be applied to wide range of participants. Following a series of scale development procedure (Clark and Watson, 1995), a preliminary, 25-item scale was developed. Items in the scale included statements that reflect play as a valuable mechanism for learning as well as items that reflect play as not a crucial element in children's learning. Experts in the field of child development and play reviewed the items to ensure the content validity of the scale. A field test was conducted, followed by a combined scaling analysis, involving factor analysis and graded response modelling (an item response theory model). The graded response modelling revealed that the EYPLPS represented a considerable variation of discrimination, ranging from 0.16 to 2.54. Further, the item difficulty spread was within a restricted range of difficulty, with most of the items clustering around the negative range of the play-learning spectrum. These results suggest that in its current form the EYPLPS is most useful at discriminating among individuals who believe play has less relevance for children's learning. A 16-item was obtained for the final version. Internal consistency (alpha reliability) of the 16-item scale from the pilot study was .85, which was satisfactory.

Having discussed the process involved in the development and validation of the scale, the next chapter presents the first phase of the explanatory sequential design (quantitative phase), using the final 16-item version as the survey instrument for data collection.

CHAPTER SIX

IMPLEMENTING THE QUANTITATIVE PHASE

The quantitative phase of the study addressed the research question: what are stakeholders' perceptions of the role and importance of play in children's learning? The objective was to identify how stakeholders conceptualize play in children's learning using the scale developed. To reiterate, it was hypothesized that parents, teachers and head teachers will differ in the beliefs about the role of play in children's learning. To explain the variation in the stakeholders' beliefs, it was hypothesised that stakeholder education level would relate to play-learning beliefs, with higher-educated stakeholders being more likely to associate play and learning. Furthermore, it was hypothesised that using cluster analysis based on a combination of factors (participants' status of being a parent, teacher or head teacher and level of education), groups with higher level of education would score higher on the scale.

This chapter of the thesis therefore discusses the data collection procedure and data analysis. Furthermore, it presents the results of the quantitative data collected as well as a discussion of the results.

6.1 Data Collection Procedure

Prior to the data collection, the ethical dimensions of the study were reviewed by the Ethics Committee of the Faculty of Education, University of Cambridge, which conforms to the British Educational Research Association (BERA, 2011) ethical guidelines as well as the code of ethics and conduct of the British Psychological Society (BPS, 2009). Access to undertake the study involved a process of negotiation between the Ghana Education Service (GES) officials at the regional and district levels. It was done in writing detailing the nature and scope of the research. However, there is an ethical dilemma involved in negotiating access from people in positions of authority and power. This is because although it is a pragmatic solution, it may override those further down the hierarchy. This problem was resolved by ensuring that informed consent was

obtained from all gatekeepers (head teachers of the various schools), parents and teachers. Participants were given a cover letter, which provided general information about the purpose of the study, data handling and ownership as well as a consent form (See Appendix A and B for English and Ghanaian language translation [Twi] cover letter, respectively). Linked to the issue of data handling and ownership, participants were assured that data will be stored safely on a password-protected laptop and external drive and handled only by the researcher. However, where necessary, data were made available to my supervisor to discuss analyses and interpretation of results. The data, once given to the researcher belonged to her. Participants were also told that the data will not be used anywhere that will identify the school or individuals involved. Participation in the research was therefore on the basis of an understanding of the purpose of the study and informed consent, with rights of withdrawal at any stage.

Upon getting the ethical dimensions right with the participants, the head teachers and teachers were given the surveys, which they completed in their schools and were later collected by the researcher (See Appendix C for survey). In the case of parents, they were asked to return the consent form indicating whether they were willing to participate in the study. Parents who agreed to take part in the study were contacted and a convenient time was arranged for them to meet with the researcher at their children's school in order for the researcher to assist them, particularly in the case of parents who could not complete the survey in English, and address any questions or concerns. The survey was professionally translated into the Ghanaian dialect (Twi) and back into English to ensure reliability (See Appendix D for Twi version of survey). The researcher read out the translated version to parents who had difficulties reading and understanding English.

The data was collected using the revised 16-item scale. Originally, it was estimated that data would be collected from a total of 320 participants. However, this was not possible due to the fact that some settings had fewer classes. Details of the process of the sample selection have been discussed in section 4.2.2.2. To reiterate, the sample was selected from 40 schools across

two regions (Greater Accra and Brong Ahafo) in Ghana. The samples from both regions were drawn from public and private schools. The selection of parents and teachers was done randomly and the head teachers within the sampled schools were selected to be included in the sample. In total, 305 stakeholders comprising 160 parents, 105 teachers and 40 head teachers were selected. However, only 292 participants responded, comprising 147 parents, 105 teachers and 40 head teachers. This represented 92% response rate for parents and 100% for both teachers and head teachers. The data collected using the scale were scored (using the score computation discussed in section 5.3.2.8) to provide information regarding participants' beliefs about play and its role in children's learning.

6.2 Data Analysis

The data was analyzed using the Statistical Package for the Social Sciences (SPSS 24.0). Table 6.1 summarises the research questions, software and the analytical tool employed to answer the question "what are parents', teachers' and head teachers' beliefs about the role and importance of play in children's learning?" First, a preliminary analysis of the data was done using descriptive statistics (mean, standard deviation and percentages). Essentially, the descriptive analysis served as a way of describing participants' overall responses to each item on the scale as well as examining subgroup responses to each scale item in order to identify commonalities and differences among the group responses. Following this, a comparison of group differences on the scale was done using a one-way analysis of variance (ANOVA). The resulting difference among the stakeholders was further explored using cluster analysis.

Table 6.1. Summary of the research questions, software and statistical analysis

Questions	**Software**	**Statistical Analysis**
What are the differences among parents', teachers' and head teachers' play-learning beliefs?	SPSS 24.0	ANOVA
What clusters of stakeholders exist based on a combination of participants' status of being a parent, teacher or head teacher and their level of education? Do these cluster groups differ in their score on the play-learning belief scale?	SPSS 24.0	Cluster Analysis

Traditionally, cluster analysis has been used in classifying homogeneous groups of observations based on the combination of some independent variables (Mooi & Sarstedt, 2011). Given its grouping ability, it has been applied in different fields, including education. For example, Myers & Fouts (1992) applied cluster analysis to segment high school science classroom environments and identified which classrooms were most closely related to positive student attitude towards the study of science. Thus, this technique was considered appropriate in creating groups according to some independent variables – their status of being a parent, teacher or a head teacher and level of education.

For this study, two-step cluster analysis was carried out using SPSS 24.0. This clustering procedure was used because it has the ability of handling mixed variables – continuous and categorical variables with two or more levels (Chiu, Fang, Chen, Wang, & Jeris, 2001). As the name suggests, the two-step clustering is a two-stage procedure. The first stage, which is the pre-clustering stage, involves the sequential clustering of the datasets to identify dense regions that are stored as summary statistics. In the second stage, the pre-clusters are grouped using the agglomerative hierarchical clustering algorithm that leads to a number of solutions. The best number of clusters is then determined using Schwarz's Bayes Information Criterion (BIC), which is a statistical evaluation criterion that automatically determines the number of clusters to be retained. The use of the statistical criterion in determining the number of clusters is

considered a very useful and objective criterion and it prevents the randomness in traditional clustering procedures.

In the two-step clustering procedure used in this study, the log-likelihood distance measure was used. This is because the variables used to create the clusters – participant status (being a parent, teacher or head teacher) and level of education – were considered mixed variables measured on different scale levels, nominal and ordinal[11], respectively. The log-likelihood distance measure assumes that all the variables are independent, the categorical variable has a multinomial distribution and the continuous variable has a normal distribution. The independence between the variables was tested using the mean statistics. The result showed that level of education increases fairly across all participant categories, suggesting the independence of the clustering variables. Given that the number of outcomes for the categorical variable was more than two, a multinomial distribution was assumed. To assess the normality of the continuous variable, skewness and kurtosis tests were examined. In both tests, the calculated z-values exceeded a critical value of 1.96, indicating deviation from normality. However, the two-step clustering algorithm is considered a fairly robust procedure because it behaves reasonably well even when the assumptions are not completely met (Chiu et al., 2001). The continuous variable was standardized and an outlier-handling step was selected to screen out data that do not fit well into any cluster. In addition, two other variables (type of provision – private and public; and type of district – rural and urban) were used as cluster descriptors. The cluster descriptors were not used in the creation of the cluster model, but were used to gain further insight about the clusters created by the procedure. Since the cluster solution could be based on the order of cases, the cases were randomly ordered. Furthermore, the cluster solution was tested using the split-half process to validate the stability of the cluster solution. For both of the analyses, the cluster solution remained the same, thus, ensuring the stability of the cluster solution.

[11] The ordinal variable was treated as a continuous variable in the process of analysis. This was done in order not to lose the information contained in the ordinal variable, where higher numbers denote high levels of education.

6.3 Results

Data collected from the 40 schools across the two regions were analysed to determine the reliability of the scale. The reliability resulted in a Cronbach alpha coefficient of .90, which was very high. Tables 6.2 reports descriptive statistics for gender and age. Figure 6.1 shows level of education for all participants, as well as, the teaching experience for teachers and head teachers. For this study, females represented the largest number of participants. This over-representation was not surprising, given that females are mostly early years teachers in Ghana and also mothers tend to respond to invitations from their children's school than fathers because they mostly drop off their children at school, hence more females responded to the invitation to take part in the study. In relation to participants' education, above 50% of participants had received higher education consisting of a post high-school education. Within this category of education status, head teachers constituted the highest percentage of participants followed by teachers and some parents. Majority of the parent sample were high school graduates and very few of them had not received any form of formal education.

Table 6.2. Descriptive statistics for participants (n = 292)

	Gender (n)		Age Mean (sd)	
	Male	Female	Male	Female
Parents	41	106	38.53 (7.51)	33.48 (5.83)
Teachers	3	102	35.66 (13.27)	38.10 (11.40)
Head teachers	20	20	46.7 (12.32)	48.05 (7.34)
Total	64	228	40.95 (10.14)	36.82 (9.75)

Note. n = number of participants; sd = standard deviation

Table 6.3 presents a summary of the means and standard deviations of participants' responses for each item on the scale. Higher ratings were reported for the items that represent learning functions of play. Ten of the eleven items had mean scores above 3, with one of the scores falling very close to 3 (2.99). Items "Play is a very good way children develop their language

skills", "Play is an important activity for children to be imaginative and creative" and "Play is an important activity for children to develop their cognitive abilities" are among the items with higher ratings. However, lower ratings were reported for items that represent other functions of play. All the five items had mean scores below 2. Among these items are "The main purpose of play is for children to have fun" and "The main purpose of play is to refresh children."

Table 6.3. Means and standard deviations for each item on the scale

Items	Mean (SD)
Play is a very good way children develop their language skills	3.59 (0.55)
Play is an important activity for children to be imaginative and creative	3.47 (0.57)
Children learn social skills primarily through play	3.32 (0.61)
Play is a very important way children learn to acquire problem solving skills	3.27 (0.63)
Play is the best way children learn to understand the world around them	3.32 (0.68)
Play is an important activity for children to develop cognitive abilities	3.35 (0.70)
Play is an important activity for children to learn to be independent	3.11 (0.64)
Play is a very good way children learn maths and science concepts	3.20 (0.79)
Play is learning time for children	3.10 (0.76)
Play should be a major aspect of early years education	3.12 (0.93)
Play is a very good way children develop academic skills such as writing	2.99 (0.87)
The main purpose of play is to make children happy	1.82 (0.69)
The main purpose of play is for children to get pleasure	1.85 (0.61)
Children should play mainly to release boredom	1.82 (0.63)
The main purpose of play is to refresh children	1.81 (0.60)
The main purpose of play is for children to have fun	1.81 (0.63)

Figures 6.2a and 6.2b show the frequency distribution (in percentages) of each group of stakeholders' responses to the scale regarding their ideas on play and learning. For most of the items, there was consistency in the number of stakeholders who agreed or disagreed. For example, the stakeholders unanimously agreed to the questions: "children learn social skills primarily through play", "Play is an important activity for children to learn to be imaginative and creative", and "Play is a very good way children develop their language skills and abilities". Over 90% of each group of stakeholders (parents, teachers and had teachers) agreed to these

statements. Furthermore, the stakeholders generally disagreed to the questions: “Children play mainly to release boredom”, “The main purpose of play is for children to have fun” and “The main purpose of play is to refresh children.” For these statements, more than 85% of each group of stakeholders disagreed.

However, there was an interesting difference in relation to the items that focused on acquiring academic skills, early years education and play being a time for learning. For example, compared to the higher percentages reported for the previous examples, a relatively lower percentage (approximately 70% of each group of stakeholders) agreed that through play children develop and acquire pencil control and writing skills. Furthermore, while above 90% of head teachers and teachers agreed that play is a very good way children learn mathematical and scientific concepts, approximately 80% of parents agreed. Another example is play should be a major aspect of early years education. Almost all the head teachers agreed compared to 80% of teachers and 75% of parents. Furthermore, over 90% of head teachers and teachers agreed that play is learning time for early years children. On the contrary, about 70% of parents agreed that time spent playing is time spent learning.

The variation in the stakeholders’ responses to the group of items (high percentages for some and low percentages for others) that represent learning functions of play suggest that the stakeholders recognise play as important in learning some skills but not others. For example, above 90% of each group of stakeholders agreed that play is a very good way children develop their language skills and abilities compared to about 70% agreeing that through play children develop and acquire pencil control and writing skills. This pattern of response was also observed for the IRT analysis. For both items, a person with an average level of play-learning belief had a 95% chance of agreeing to the former item compared to a 70% chance of agreeing to the latter item. This means stakeholders are very likely to consider play as a thriving environment for language development compared to acquiring academic skills.

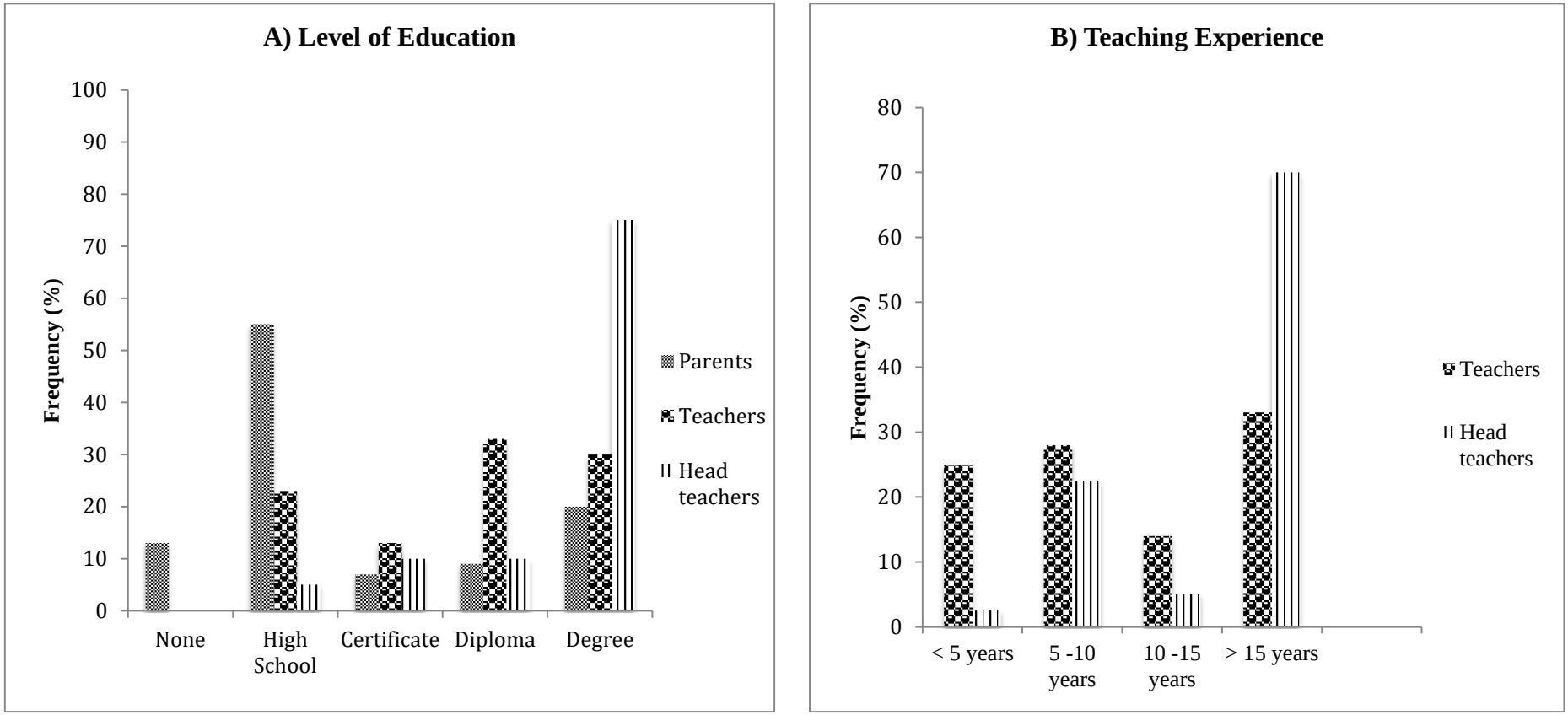


Figure 6.1. Participant characteristics by (A) highest level of education completed; and (B) years of teaching experience
Note. High School (secondary education); Certificate (one year post high school); Diploma (two years post high school); Degree (Bachelors/ Masters)

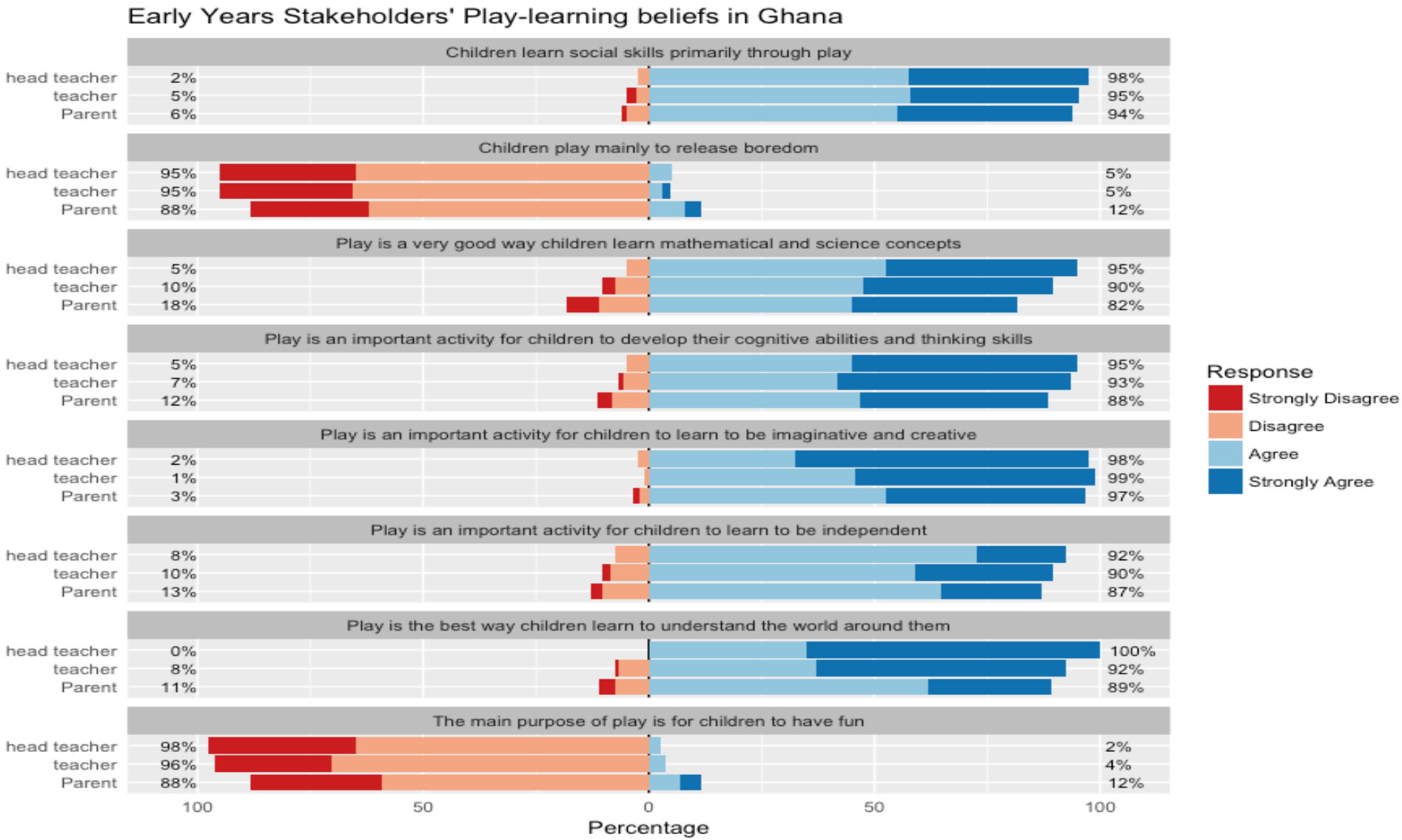


Figure 6.2a. Frequency distribution of stakeholders' play-learning beliefs as measured by the EYPLP scale

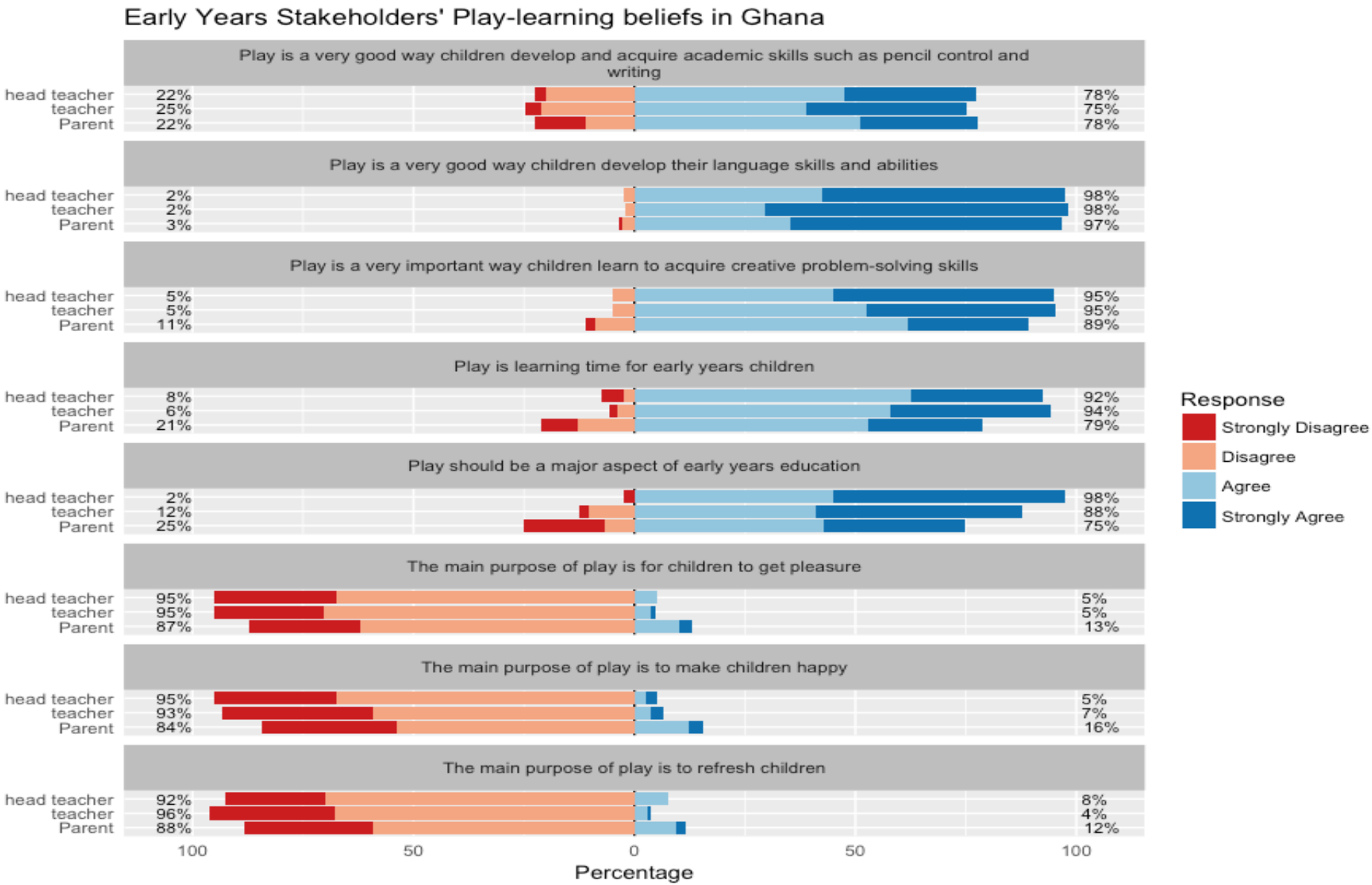


Figure 6.2b. Frequency distribution of stakeholders' play-learning beliefs as measured by the EYPLP scale (Continued)

6.3.1 Differences Among Stakeholders' Play-learning Beliefs

Table 6.4 shows the differences in mean EYPLPS scores for the stakeholders. Although the differences were small, head teachers and teachers perceived the role of play in children's learning more favourably than did the parent sample. An analysis of variance (ANOVA) was used to investigate whether differences in the scale scores among the stakeholders were statistically significant. The results indicated a statistically significant difference for score on the scale, F (2, 289) = 4.78, p = .009, r = .17. Although the effect size indicated a somewhat minor between-group differences in the stakeholders' scale score, a Games-Howell post hoc analysis revealed that scale score was statistically significantly lower for parents compared to head teachers (p = .035), and teachers (p = .016), indicating parents were less likely to associate play and learning than teachers and head teachers. There were no differences between teachers and head teachers (p = .921).

Table 6.4. Descriptive statistics for scores on the EYPLP scale (Possible range: -9 to +39)

	Mean (sd)	Range (min-max)
Parents (n = 147)	25.38 (7.99)	-3-39
Teachers (n = 105)	27.77 (5.70)	5-39
Head teachers (n = 40)	28.18 (5.59)	6-39
Total	26.62 (7.03)	-3-39

Note: n = number of participants; sd = standard deviation

6.3.2 Cluster Analysis

The statistically significant difference found among stakeholders prompted the examination of stakeholders' beliefs in relation to their level of education and to determine whether their education status might be a factor in explaining the differences among the groups. To reiterate, a two-step cluster analysis was conducted in order to identify subgroups based on participants' status (being a parent, teacher and head teacher) and level of education. Cluster analysis was

chosen in order to see if distinct subgroups could be created and these groups compared on the scale score.

6.3.2.1 Establishing the number of clusters

On the basis of the auto-clustering algorithm, a five-cluster solution appeared to be the most satisfactory, because it gives the lowest value of the Schwarz's Bayesian Information Criterion (BIC) and the highest value for the ratio of distance measures (Table 6.5). The final cluster solution also included the number of excluded observations.

Table 6.5. Results of auto-clustering

Number of clusters	Schwarz's Bayesian Criterion (BIC)	BIC Change [a]	Ratio of BIC Changes [b]	Ratio of Distance Measures [c]
1	645.134			
2	318.395	-326.739	1.000	2.316
3	189.688	-128.708	.394	2.073
4	138.882	-50.806	.155	1.681
5	117.496	-21.386	.065	5.043
6	130.722	13.226	-.040	.[d]

[a] The changes are from the previous number of clusters in the table

[b] The ratios of changes are relative to the change for the two-cluster solution

[c] The ratios of distance measures are based on the current number of clusters against the previous number of clusters

[d] Since the distance at the current number of clusters is zero, auto-clustering will not continue

6.3.2.2 Profiling of clusters

Tables 6.6 presents the descriptive statistics (frequency distribution and mean) of the five clusters. Figure 6.3 presents the level of education for each cluster and Figure 6.4 presents the distribution of variables used to describe the clusters. The first cluster, which had the largest group with 35.6% of the total participants, was made up of parents with children enrolled mainly in rural private and public schools. In terms of education status, this group was considerably made up of high school graduates and was therefore labeled 'low-educated parents'. In contrast, cluster 2, which consisted of 14.7% of the participants, also constituted

parents who had children enrolled predominantly in urban private schools. In terms of education status, this group was mainly made up of degree holders and was therefore labeled 'high-educated parents'. The third cluster comprised 13% of the total participants and was characterized by teachers who worked both in rural and urban private schools. This cluster was labeled 'moderate-educated teachers' because teachers within this cluster were high school graduates and certificate holders. Cluster 4, which consisted of 22.9% of the participants, was also made up of teachers who worked mainly in both rural and urban public schools, and was labeled 'high-educated teachers' because teachers within this cluster had mainly diploma and degree as their level of education. Finally, cluster 5 constituted head teachers of both private and public schools, representing 13% of the overall participants. This cluster was labeled 'high-educated head teachers' because it was substantially made up of degree holders. The two outliers were head teachers of private schools who did not fit into any cluster.

Table 6.6. Descriptive statistics of the five clusters

	Participant Status			Age	Gender (%)	
Cluster	Head teacher	Teacher	Parent	Mean (sd)	Male	Female
Low-educated Parents	0	0	104	35. 10 (7.10)	9.3	26.6
High-educated Parents	0	0	43	34.40 (5.73)	4.8	10.0
Moderate-educated Teachers	0	38	0	34.97 (12.46)	0.3	12.8
High-educated Teachers	0	67	0	39.88 (10.49)	0.7	22.4
High-educated Head teachers	38	0	0	48.42 (9.15)	6.2	6.9
Total	40	105	147		21.4	78.6

Note: Two head teachers did not fit into any of the clusters and are not represented here.

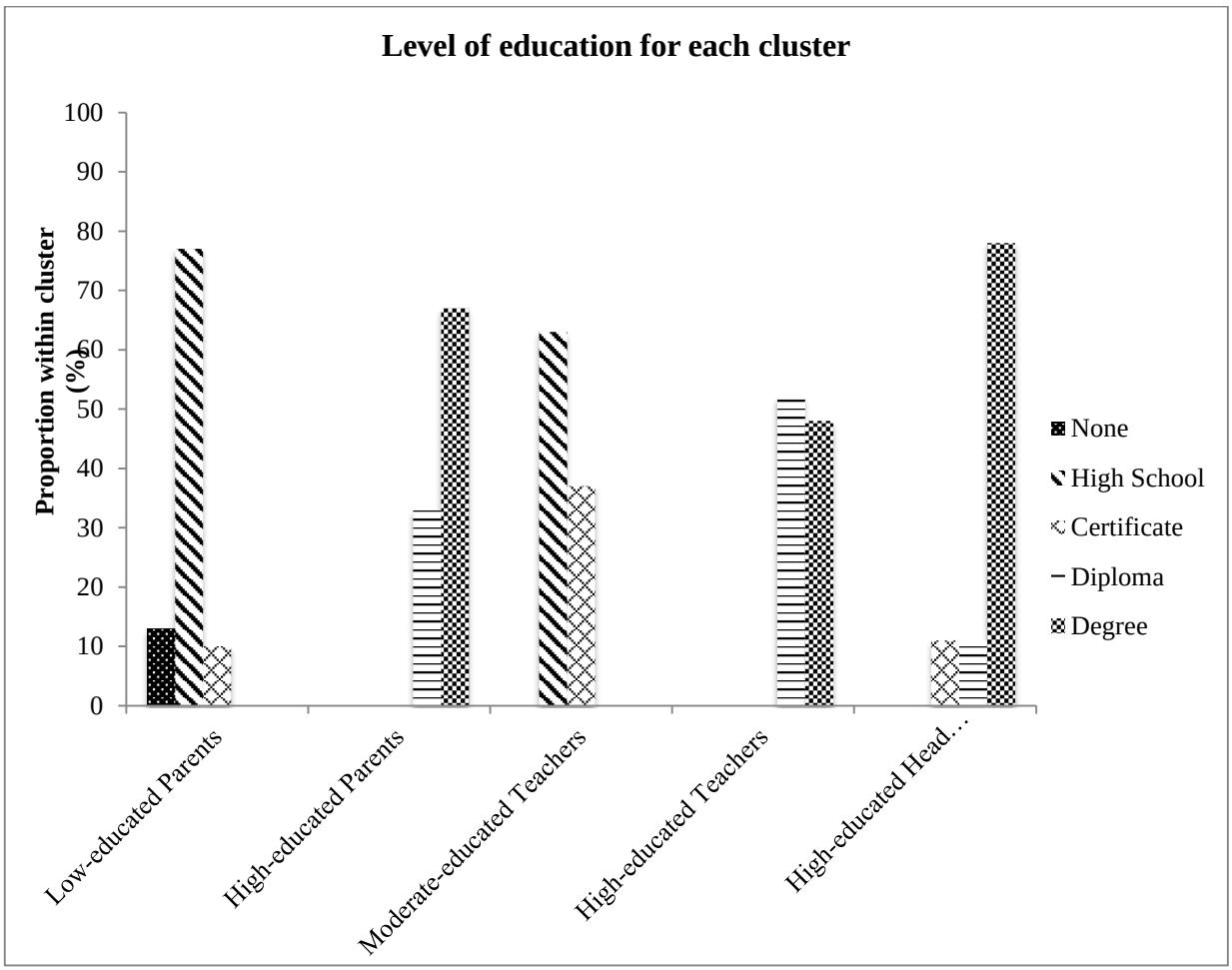


Figure 6.3. Level of education for each cluster

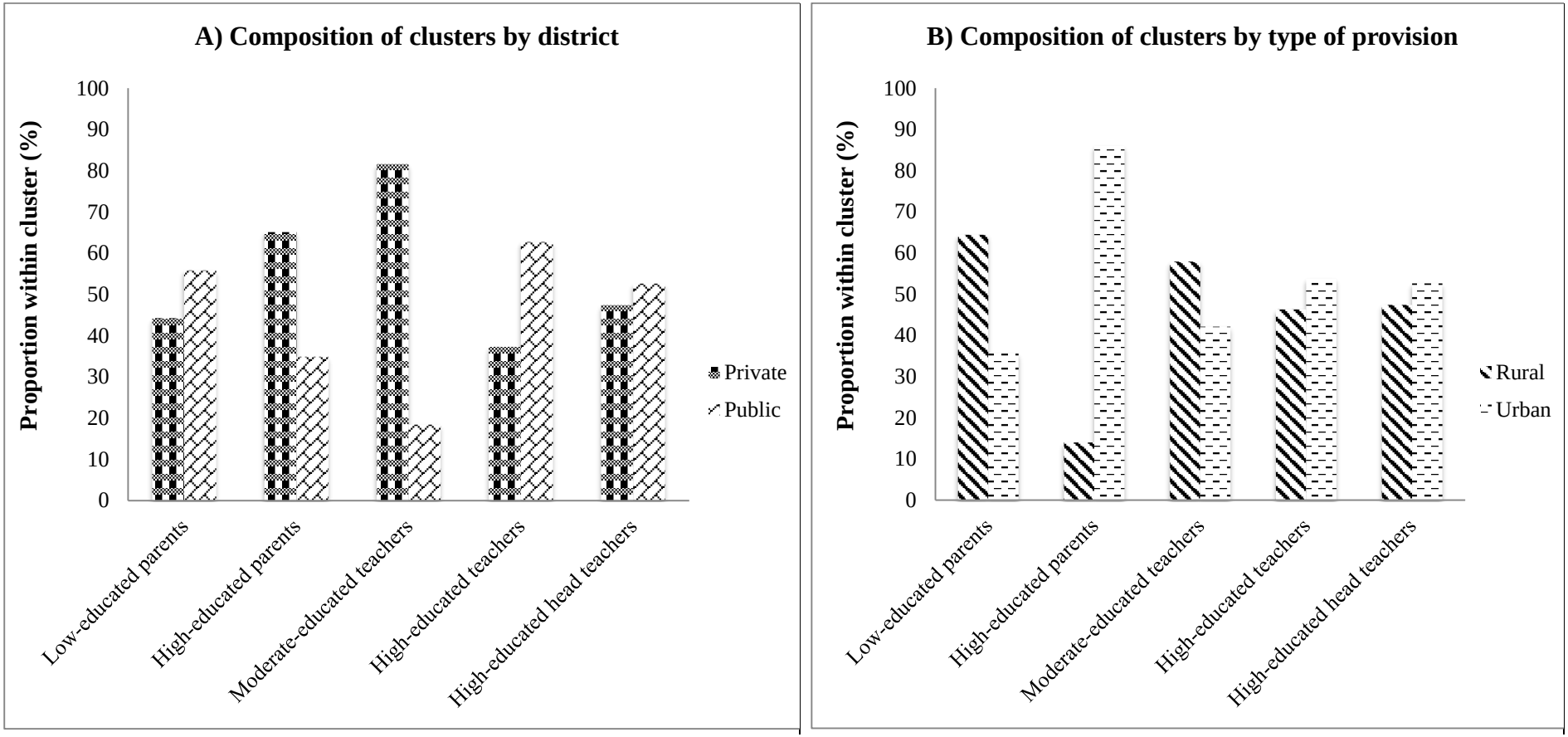


Figure 6.4. Cluster characteristics by (A) urban vs. rural district; and (B) public vs. private provision

6.3.2.3 Demographic status by cluster group

The five cluster groups were compared on two demographic variables – age and sex (refer to Table 6.6 for descriptive statistics). There were significant differences between groups on demographic characteristics. In terms of age, ANOVA indicated a significant difference between cluster groups, $F(4, 284) = 19.30$, $p < .001$. A Games Howell post hoc test revealed that head teachers' age was significantly higher than all the other cluster groups (all *p's* < .001). The Chi-square analysis of the frequency distribution for sex was significant, $x^2 (4) = 41.20$, $p < .001$. When looking at the breakdown between clusters, the results indicated a greater proportion of females in each of the clusters, except cluster 3, which had almost an equal proportion of males and females.

6.3.2.4 Cluster Differences in Scale Score

The cluster groups were compared on the EYPLP scale score to validate the difference between the two, using a one-way analysis of variance (ANOVA). Standardized z scores for each cluster group on the EYPLPS are presented in Figure 6.5. As expected, a significant difference was obtained between cluster groups on the scale score. The resulting model showed that the effect of cluster was significant, $F (4, 289) = 7.63$, $p < .005$, $r = .31$. With a medium size effect indicating some important between group differences, post hoc analysis using the Games Howell post hoc criterion revealed that EYPLP scale score was statistically significantly lower for low-educated parents compared to high-educated parents, high-educated teachers and high-educated head teachers (all *p's* < .005), indicating low-educated parents were less likely to associate play and learning than these other groups. There was, however, no statistically significant difference between EYPLP scores of low-educated parents and moderate-educated teachers ($p = .388$).

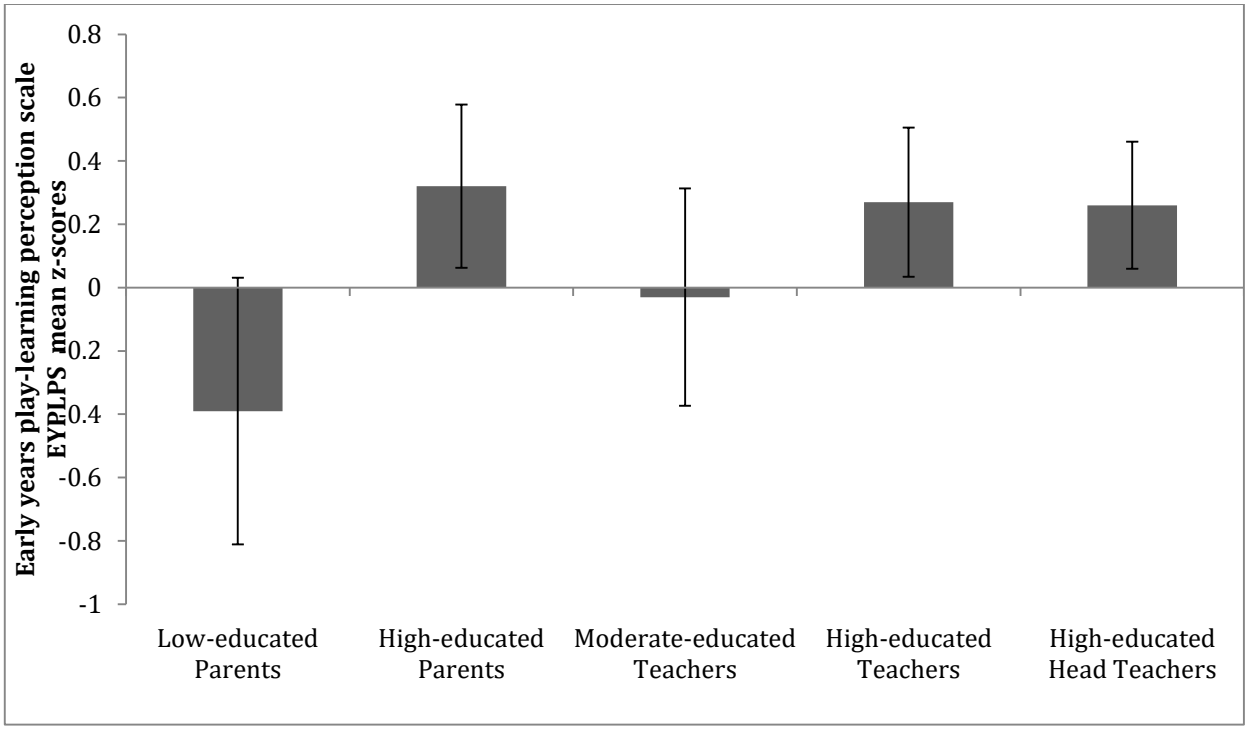


Figure 6.5. Cluster scores on the EYPLP scale.
Note. Participants in clusters with means below zero are less likely to endorse play as a form of learning, compared to participants in clusters with means above zero. Error bars show 60% confidence intervals.

6.4 Discussion

The quantitative data collected reflected stakeholders' beliefs about the role of play in children's learning. Preliminary analysis of the frequency distribution of the stakeholders' responses to the scale revealed that generally the idea of play as a mechanism for children's learning was positively perceived. Higher ratings were reported for the items that represent learning functions of play, whilst lower ratings were reported for items that represent other functions of play. A breakdown of the frequency distribution for each group of stakeholders showed that the stakeholders were less inclined to endorse statements that depict play as an activity done exclusively for fun, pleasure, happiness or to release boredom, which reflect the classical theories of play (Lazarus, 1883; Patrick, 1916). In contrast, the stakeholders tended to have favourable views of play reflecting the modern theories of play (Piaget, 1962; Vygotsky, 1966; Sutton-Smith, 1976; Bruner, 1972), which focus on play as an opportunity for children to develop cognitively, socially, academically as well as language abilities, and creative skills.

A comparison of the mean differences among the stakeholders revealed significant differences among the stakeholders' play-learning beliefs, which was consistent with the hypothesis of the study (Hypothesis 1). Both teachers and head teachers perceived play as a form of learning more favourably than the parents. Unlike the head teachers and teachers, the parents appeared less likely to highly perceive the role of play in children's learning, recording scores as low as -3. This difference was explored using cluster analysis combining participant status (parent, teacher and head teacher) and level of education.

The results of the cluster analyses were consistent with the study's hypothesis. Cluster analysis revealed five distinct groups distinguishable by participant's status (being a parent, teacher or head teacher) and education status (Hypothesis 2). By and large, these clusters revealed interesting findings about Ghanaian early years stakeholders' profile and their play-learning beliefs. In terms of education status, it is not surprising to find a contrast between moderate-educated teachers and high-educated teachers. Moderate-educated teachers were mainly private-school workers who have high school education with a relatively high proportion in rural settings, while high-educated teachers were predominantly rural and urban public-school workers with diploma and degree. This difference could be attributed to the fact the government is making considerable strides to ensure only qualified teachers are employed within the public education sector (Aheto-Tsegah, 2011), whereas private-school employers, who are more focused on making profits, tend to hire the services of unqualified individuals, mostly high school graduates. This finding highlights the fact that private settings still attract unqualified teachers and supports Wolf et al.'s (2018a) finding that teachers in private schools are less educated. It also emphasizes the fact that rural settings have more unqualified teachers (Cobbold, 2006).

Although low-educated parents and high-educated parents clusters were made up of parents, the former was characterized by relatively higher percentage of parents from both types of provision (public and private) with a higher proportion from rural settings. On the other hand, it is

puzzling why the high-educated parents cluster had the highest proportion of parents with children enrolled in urban private schools. This could be explained in two possible ways. First, even though public schools have more qualified teachers compared to private schools, the poor state of most public schools tends to push parents into enrolling their children in private schools, an indication that parents are going out of their way to seek quality education for their children. Second, although the economic status of participants was not examined in this study, it is possible it might be an influencing factor in parents' choice of provision, since enrolling a child in a private school has more cost than public schools. The demographic pattern observed here is consistent with findings from Wolf et al.'s (2018a) study, where they showed that children enrolled in private schools come from wealthier and more highly educated families. Also it confirms the fact that urban settings attract parents with higher levels of education (Cobbold, 2006). Thus, given the seeming lack of confidence in public schools, high-educated parents who find themselves in cities and can afford private education for their children would want to enroll them in private schools (Bidwell, Pary, & Watine, 2014).

The cluster groups were compared on two demographic variables – age and gender – and the effect was significant. The results for age indicated that the head teachers' age was significantly higher than all the other groups and the head teachers also had higher scores on the EYPLP scale, reflecting a belief that play and learning are connected. It is possible that over a period of time and with more years of teaching experience (refer to Figure 6.1b for statistics on teaching experience), the head teachers might have been exposed to different pedagogical approaches and therefore endorsed a generally positive view of play and an appreciation of its importance in children's learning. With regards to gender, the significant relationship between gender and group membership is due to the fact that early years teachers in Ghana are mostly females and mothers mostly respond to invitations from their children's schools. Although the head teacher cluster had approximately equal proportion of males and females and had higher scores on the scale, suggesting that males and females do not differ in their play-learning beliefs (in this case positive beliefs), the misrepresentation of males in the remaining cluster groups makes it

difficult to draw any strong conclusions about the role of gender in Ghanaian stakeholders holding similar play-learning beliefs. Future studies could tease these factors apart.

The five distinct clusters identified were compared on the EYPLP scale score and appear to be valid. This validation stems from the fact that between-group differences in cluster group membership were found for the scale score. The results suggest that level of education is associated with adults' play-learning beliefs. Stakeholders with low and moderate education status had the lowest score on the play-learning belief scale. On the other hand, stakeholders with high education had higher scores on the play-learning belief scale. This finding is supported by the findings of previous studies conducted in different cultures. For example, previous research works found that parents with high education tended to have more positive beliefs about play compared to those with lower levels of education (Pirpir, Er, and Koçak, 2009; Manz and Bracaliello 2016; Laforett and Mendez 2016; Fogle and Mendez, 2006).

The fact that the parent sample constituted the largest group with the lowest level of education and score on the scale suggests a preference for more didactic-oriented activities that stress the acquisition of knowledge as early years educational goals. This confirms previous research in the USA that demonstrated that parental goals for early years education differed by education, where parents with less education preferred didactic teaching methods that do not emphasize play (Miller, 1989). The present set of findings extends this to establish a similar pattern in a previously unexamined context, in Ghanaian early years settings. This trust in didactic instruction could be attributed to the cultural belief that academics is more important than play and that children need to be exposed to educational activities where they are taught in formal ways, are assigned class exercises and spend more time at home on completing exercises. This emphasis on exercises (both at school and home) was highlighted by parents in Kabay et al.'s (2017) study as important ways of keeping children occupied and tracking their learning progress.

6.5 Summary

In this chapter, data collected from 292 participants using the Early Years Play and Learning Perception Scale was analyzed using descriptive statistics, ANOVA and cluster analysis. Preliminary descriptive analysis suggests that stakeholders believe play serves as a learning opportunity for children. However, further analysis using ANOVA showed that teachers and head teachers have more favorable beliefs about play in children's learning compared to parents. When this difference was explored using cluster analysis, it was found that stakeholders with higher levels of education believe play has an important role in children's learning compared to those with lower levels of education. The results reveal a general indication of stakeholders' characteristics and their play-learning beliefs. It showed that public teachers have higher levels of education compared to private teachers. It also showed that parents who enroll their children in private settings have higher levels of education compared to those who enroll their children in public settings. Further, the results suggest that parents, teachers and head teachers who have higher education are more likely to believe play has an important role in children's learning. In contrast, the results also indicate that parents with lower education are less likely to perceive play as important in children's learning. Despite these interesting results, still there were very important aspects of play and its implementation in the classroom that could not be explored using the survey design. Thus, the scores generated from the quantitative data were used to select four cases for the qualitative phase of explanatory sequential design, which is presented in the next chapter.

CHAPTER SEVEN

IMPLEMENTING THE QUALITATIVE PHASE

The qualitative phase of the study provided in-depth examination of stakeholders' beliefs about play and learning as well as classroom practices. This chapter discusses the implementation of the qualitative phase of the explanatory sequential design. It addresses the data collection procedure and analysis of the data. Furthermore, it presents the findings of the qualitative data collected as well as a discussion of the findings.

7.1 Data Collection Procedure

Prior to the data collection, the scores for all the participants in each setting were summed. Following this, all the settings for each type of provision (public and private) in each region were ranked from the highest to the lowest and two cases (settings) were selected from the upper and lower quartiles. The cases selected represented both rural and urban settings as well as public and private. The head teachers of the selected early years settings were contacted for discussion relating to the second phase of qualitative data collection.

Qualitative data collection was done using interviews with parents, teachers and head teachers, documents, photographs and classroom observations. Interviews were carried out in the premises of the schools at a time convenient for the participants. The interview was conducted in English for the head teachers and teachers and in the Ghanaian dialect (Twi) for the parent sample because most of them could not speak English. A semi-structured interview format was adopted (See Appendix E for interview guide). Participants were initially given an information sheet that detailed the nature and purpose of the study, how data will be used, the use of audio recording as well as a translator to transcribe the data (parent sample) and gave their consent to participate in the second phase of the study either by signing the consent form or consenting verbally (See Appendix F and G for English and Twi information sheet, respectively). Participation in the interview was based on the willingness of the stakeholders and they were

informed of the anonymity of their identities and schools as well as the confidentiality of their responses.

The interview commenced with the collection of data on the background of each stakeholder. Information such as educational background, type of work (for parent sample), and years of teaching experience (for the teachers and head teachers) were gathered. This was followed by questions that worked through each stakeholder's description of play and learning, types of children's play, the relationship between play and learning, the value of children's play and the adult role in children's play. Questions that were posed from the interview guide included the following: (a) "What do you think about play in the classroom?" (b) "How would you define play?" (c) "How would you define learning?" (d) "Do you think play has an important role for children?" Why?" (e) "Do you think you have a role in children's play?" Follow-up prompts were used to get fuller answers and to avoid misinterpretation. The interviews ranged from a minimum of 20 minutes to a maximum of 60 minutes.

After the interview, a copy of the curricula document was obtained. A suitable date was arranged with the head teachers for the collection of the observation data. Observations were carried out in both nursery (for private schools) and kindergarten classrooms (both private and public schools). A semi-structured observation format was adopted. In each setting, types of activities were observed, play activities among children were noted and the teacher's role in the class was noted. Field notes were written to show how teachers' beliefs expressed through the interview were or were not manifested in practice. Episodes of teaching and learning across the four settings were selected to reflect learning areas described in the curriculum that are being implemented – numeracy, language and literacy, creativity and environmental studies – and one that is not specified in the curriculum but observed in one case (social and moral education). An episode refers to 60 minutes of teaching and learning activities for a lesson in a particular learning area. During the period of observation, photographs of the classroom settings, children's exercises and assessment report were taken. Taking photographs meant faces of

children could be captured and information about children's school, name and scores could be revealed. Therefore, a special form for parental consent was developed and distributed to all parents with children enrolled in the classes (See Appendix H). Parents who did not want their children to be photographed were asked to return the form indicating their disagreement. No parent returned the form, suggesting none disapproved the taking of photographs. Moreover, efforts were made to hide personal identifiers about children.

7.2 Data Analysis

Step 1

A repetitive playing of the interview data was done to have knowledge of what had emerged. Following this, a full transcription of the interview data was produced. The researcher transcribed interview data conducted in English. On the contrary, interviews conducted in the Ghanaian dialect were first transcribed and translated to English by a translator based in Ghana. The next step involved a back translation of the English version into the Ghanaian dialect (Twi). This was done to ensure the reliability of the data and to confirm that the meaning of the data was not distorted. The use of a translator raises concerns about confidentiality. To resolve this problem, the researcher and translator adopted a written agreement. The agreement detailed the translator's responsibility in maintaining complete confidentiality (See Appendix I).

Step 2

The transcribed interview data, photographs and observation notes were imported into a computer-assisted tool (Atlas.ti). This software was used because although the opportunity to gather data from different sources is very attractive because of the rigour associated with this approach, there is the danger of the researcher being 'lost' in the data (Baxter & Jack, 2008). The collection of overwhelming amounts of data therefore required management. Essentially, the tool helped in accomplishing the tasks of categorising the large amount of data collected. Moreover, using the database for accomplishing this task means that raw data could be made available for independent inspection. In this manner the quality of the case study increases (Yin,

2009). One of its most impressive strengths is the range of data files that one can import and work with directly (Lewis, 2004). It therefore helped manage, integrate and code the multiple data – text, visual and audio – that were gathered.

Step 3

Using the computer tool as a way to manipulate the data, an analytic strategy was adopted. The analysis was informed by the theoretical perspectives of play (classical and modern theories of play), types of play and the sociocultural framework of play. For each case, the purpose of the analysis was to demonstrate how play and learning are constructed. Clearly, the proposition helped focus attention on certain data and to ignore other data as well as helped organise the entire case study (Yin, 2009). Along with the analytic strategy used, cross-case synthesis was used as the specific analytic technique. As highlighted by Yin (2009), in this type of technique each case is treated as a single case in order not to lose the uniqueness of each case. Therefore, all the data in each case were carefully examined, and the data organised into a comprehensive description. Once a full account of each case was developed, cross-case comparisons were developed. The case comparison was driven by the purpose of the study (Stake, 2006), to understand the phenomenon –similarities and differences across different perspectives. A worksheet was designed to depict key issues and identify how they are patterned in each case. Finally, the cases were integrated, exploring common threads and differences within and across cases to form more general explanations.

In framing the analysis, Rogoff's (2003) sociocultural framework of analysis was adopted. Her framework offers three frames of analysis: intrapersonal, interpersonal and cultural/institutional. The intrapersonal lens focuses on the solitary stakeholder, that is, the individual teacher, parent and head teacher's beliefs about play. The interpersonal frame focuses on the role of adults in children's play. It is interested in knowing how the stakeholders perceive their role in supporting children's play. Finally, Rogoff (2003) points to the importance of institutional and cultural factors in making sense of the data. She refers to this as the cultural-institutional focus of

analysis. For example, knowing what the curriculum sets out about play and how play is theorised and defined in the curriculum or the Ghanaian cultural conception of children and how they learn shape the way the data are understood.

7.3 Findings

This section first considers the status of play as presented in the Ghanaian early years curriculum. Next, it presents the findings of each of the early years classes. The findings for each early years classroom are presented in relation to the research questions, which are summarized under the following headings: perceptions of play and learning, perceptions of different play types and their importance, perceived long-term benefits of play, adult role, thinking about their practice and observation of classroom practice. Quotes from individual participants are used to explain the findings. This, however, implies that ethical issue of anonymity needs to be considered. As part of the process of seeking consent, participants agreed that their responses should be presented in this way, but their anonymities were ensured using pseudonyms. Following the presentation of each case, the commonalities and differences among the cases are presented.

7.3.1 Expressions of play: Document Analysis of the kindergarten curriculum

The national early years curriculum covers schools in both the public and private sectors. The curriculum guidelines, which is termed as curriculum for kindergarten (1 & 2), covers the two years before primary school age, that is from age four to five and did not extend its coverage to children below the age of four. This means there is no curriculum guidelines for children enrolled in nursery classes. For the nursery classes observed, the teachers depend on scheme of works drafted by the school management.

7.3.1.1 Curriculum Principles

The curriculum recognizes the principle that early years children learn by ‘doing’ and thus, emphasized the provision of expressive activities that demanded children’s participation in all

learning. It identified a set of general aims, which provided a theoretical underpinning for the curriculum. These aims focused on helping children to (Ministry of Education, 2006, ppi):

- Develop communication skills that enable them to express their emotions, thoughts and actions in various ways such as listening, speaking, reading and writing;
- Familiarize themselves with the environment and its living and non-living components;
- Learn to live a healthy life;
- Develop their psychosocial competencies such as assertiveness, self-confidence and relate positively with others;
- Awaken and develop their potential creative abilities;
- Respond emotionally and intellectually to the world around them through music and dance;
- Appreciate and find pleasure in their own creations and those of others

7.3.1.2 Content of the curriculum

In achieving these aims, the curriculum sets the pedagogical approach, which provides details of the specific topic, learning objectives, the appropriate teacher and learner activities, time and assessment guidelines, targeting six areas of learning:

- Language and literacy
- Environmental studies
- Mathematics, science and technology
- Creative activities
- Music, dance and drama
- Physical development
- Psychosocial skills (interwoven with all the areas)

Through each of these areas of learning and experiences, the child is to develop psychosocial skills. Thus, the development of psychosocial competencies is considered integral to all the six areas of learning.

7.3.1.3 Play as theorized in the curriculum

In general, the curricular framework specifies a child-centered approach to learning. Although a child-centered approach highlights child-initiated activities where the child takes command of his or her learning with the teacher providing support and facilitating the child's learning in an open-ended play environment (Sylva et al., 2010), the curriculum did not make these details explicit. A critical examination of the breakdown of the curricular framework for each of the areas of learning revealed that the curriculum suggests learning through play, which was explicitly stated for two areas of learning – creativity and language and literacy. For creativity, the curriculum suggests free play where children have the opportunity to explore materials and tools, but this was indicated in connection with only one topic. With regards to language and literacy, which the curriculum considers pivotal for oral and written communication, the curriculum clearly stated the need for the child to engage in play in order to develop his or her listening and expressive language skills. Furthermore, it suggested facilitating language and literacy development through the creation of different learning centres, such as the store, cooking, water and sand centres that allowed children the freedom to explore and talk with their peers and teachers. The curriculum also includes rhymes that should be taught to facilitate children's language and literacy development.

Despite the fact that the curriculum assumes a child-centred approach to learning and specifies learning through play for certain areas of learning, examining the teacher and learner activities for each of the areas of learning suggests a more teacher-initiated approach where the teacher mainly introduces activities that make use of play elements in one form or another (See Table 7.1 below for examples of each area of learning as presented in the curriculum). In other words, the activities outlined in the curriculum reflect children as recipients and teachers dominating

the teaching and learning process. To this end, the status of play in the curriculum is somewhat superficial. 'Play' as presented in the curriculum is allowing children access to teaching and learning materials (objects) in order for them to see and touch so they can better comprehend the lesson being taught and a way to get children involved in lessons, but not creating the environment where the child acquires knowledge and thrives through discovery and exploration coupled with support from teachers. In other words, 'play' as presented leaves no time for children to initiate their own play in a supportive learning environment. Therefore, the activities prescribed in the curriculum focus on the whole class and the teacher is to lead children to answer questions or demonstrate and repeat an activity for children to imitate.

This theorisation of play in the curriculum is consistent with the sociocultural theory of play. From the sociocultural premise, children's access to play is defined by the cultural conception of play. Thus, the notion of play represented in the curriculum does not lend itself to a child-centred approach to learning that recognises play-as-learning. But it highlights play as an activity that is important for teaching and learning of knowledge through the use of objects (play-for-learning). Play is accepted and outlined in certain aspects of the curriculum for its ability to get children to participate in activities that are dominated by teachers.

Table 7.1. Examples of teacher and learner activities for each areas of learning

Topic	Specific Objectives	Content	Teacher, Learner Activities	Evaluation
Language and Literacy (Conversation)	Use words to express ideas	Talk about things that are meaningful and interesting to children in their immediate environment, e.g. themselves: Choose various activities, e.g. Play, TV, Events	Through leading questions, guide children to talk about things that are meaningful and interesting in their immediate environment, e.g. themselves: What is your name? How old are you? Show me your head, nose? Use songs to teach parts of the body, e.g. "My head, my shoulders"	The child draws himself/herself: Show incomplete picture of a person for the child to complete by drawing or pasting, using cut out parts of the body
Environmental Studies (Myself)	Describe him/herself	Self-description: Name, Age, Sex, Height, Complexion	Teacher to lead children to mention their names, sex, age, etc. Teacher to describe himself/herself for children also to describe themselves Teacher to lead children to sing songs or recite rhymes related to the topic	Child to answer questions about himself/herself: E.g. What is your name? How old are you?
Music, dance and drama (Singing)	Sing or chant to accompany activities	Singing dramatic songs	Story telling interspersed with singing. Singing games or action songs, e.g. stone passing game	Is the child able to sing and play other games?
Physical development (Gross motor)	Develop and strengthen large muscles by engaging in a wide variety of exercises for the large muscles	Exercises for large muscles without equipment	Engage children in various activities: climbing stairs, ladders, jumping, hoping, dancing, etc.	Varying exercises with the same activity

Table 7.1 (Continued). Examples of teacher and learner activities for each areas of learning

Topic	Specific Objectives	Content	Teacher, Learner Activities	Evaluation
Creative Activities (Drawing and colouring)	Explore and use materials and tools to scribble and colour and paint	Exploration of tools and materials in free-play scribbling and in colouring/painting activities, e.g. uncontrolled doodling Materials: paint/colour, paper, chalk, slate, crayon, markers, brushes of different kinds, etc.	Display the relevant materials for the lessons Demonstrate how to explore and use different tools and materials in different uncontrolled scribbling and colouring/painting activities in the air, and tray, chalk, etc. Guide children to hold, explore and use various tools and materials to scribble and colour freely on sand tray, paper, chalkboard, etc.	Is the child able to: Explore, scribble, colour and talk about the work individually and as a group? Is the child able to explore and use different tools and materials to perform various scribbling activities without help?
Mathematics (Classification)	Group objects based on a given criterion Discriminate among objects	Collection/making groups/sorting objects based on colour, shapes, sizes, length Finding differences among objects	Let children form groups of objects based on colour, shapes, sizes, length and use Find the odd one out from a group of objects/materials based on a given criteria: colour, shape, etc.	Child to: Sort objects into groups according to given criteria: colour, size, shape, etc. From a given group of objects/pictures, find or pick the odd one out
Psychosocial skills (Coping with emotions)	Identify emotions	Emotions: anger, fear, love, hatred, happiness, etc.	Teacher demonstrates the different emotions to children Children also demonstrate in turns the different emotions	Does the child identify and label feelings or emotions?

Source: Kindergarten curriculum (Ministry of Education, 2006)

Note. These examples were taken from the kindergarten curriculum and have been presented as they are in the curriculum

7.3.2 Case A: Public Rural Classroom (Brong Ahafo)

7.3.2.1 The Context of Case A

Case A is kindergarten classrooms, which is part of the junior high school, where care and education of four and five year olds are provided. The kindergarten classrooms are within the junior high school located in a rural community in the Brong Ahafo region, Ghana. Each class has about 30 children who were taught by two teachers (the lead teacher and assistant teacher).

7.3.2.2 Background of Stakeholders

The head teacher had about 40 years of experience working with children from kindergarten to junior high school levels. She had worked primarily in government settings and had a degree in education. Both teachers were qualified teachers with a Degree in Education and had more than 15 years of teaching experience. Parent 1, who had her daughter enrolled in the kindergarten classroom, had not received any formal education. She worked as a trader. Parent 2, who had her son enrolled in kindergarten classroom, received formal education to the junior high school level. She also worked as a trader.

7.3.2.3 List of Characters

Head teacher – Principal Mary

Teacher 1 – Madam Cecilia (teacher of five-year olds)

Teacher 2 – Madam Martha (teacher of 4-year olds)

Parent 1 – Ama (mother of child enrolled in kindergarten)

Parent 2 – Efua (mother of child enrolled in kindergarten)

7.3.2.4 Perceptions of Play and Learning

Describing Play

When the stakeholders were asked about play, they shared similar beliefs that play makes children happy and that play in the classroom is important. However, there were some

differences in how they described the importance of play in the classroom. To uncover what they think about play in the classroom, I questioned whether play should be part of the classroom learning experiences. Their descriptions reflected play as an activity that is cultivated, accepted and curtailed. Principal Mary described play as an activity that is cultivated saying that, "Play in the classroom is important. We do play through rhymes, singing and dancing, sorting, grouping and rearranging items". Like the head teacher, both teachers agreed play in the classroom is important, but Madam Cecilia considered play as an activity that is done at the beginning of each day in school and something that is done to initiate a lesson, giving examples of play activities in the form of rhymes and playing with gestures. Her description suggests play is used to make children relax when they get to school and to also refresh them in order to begin a lesson, indicating an accepted view of play. She explained, "Play is the first thing we do in the classroom. Even before we start any lesson at all we begin with play. We use rhymes, gestures to play".

Contrary to Madam Cecilia who considered play as preparing children for the start of school and lessons, Madam Martha offered a fairly cultivated view of play. She recognised play in the classroom as an opportunity for children to use objects as a way of learning. She described how through play children are able to develop numeracy skills:

> Playing with games and objects for some time. You give them the objects with different shapes to play with. The child thinks he is playing but he is learning. When it comes to the time for questions: how many objects do we have, are they equal? The child plays with the object and is able to answer the questions

Like Principal Mary and Madam Cecilia, Ama described play in the classroom as an activity that can be cultivated to achieve an education goal. She introduced the element of purposeful play when it comes to play in the classroom. She believed that play in the classroom is important but using play in the classroom implies it has to be tailored to achieving an educational goal and should therefore serve an educational purpose. In other words, play can only be meaningful when it is focused on achieving an educational goal. She said,

> Play in the classroom means they are learning something. Before play takes place in the classroom it will have a purpose. Play in the classroom means they are using play to learn something.

Efua also expressed the partial importance of play in the classroom, but she was concerned about the amount of time allocated for play. From her perspective, allowing too much time for play in the classroom will impede children's acquisition of knowledge. Therefore, play in the classroom should be kept to the minimal, demonstrating a curtailed perspective of play:

> Partly, play is an opportunity for learning. But if he plays too much, he will easily forget what his teacher asks him to write or read. Play in the classroom is partly good and partly not good for learning. If he doesn't pay attention to what he is taught in the classroom but sets his mind on play, it will not help him. He will not be knowledgeable. But if, let's say, the teacher prevents him from play and asks him to learn he will become knowledgeable.

Describing Learning

In describing what learning is, all the stakeholders said it involves the acquisition of knowledge and skills using different means and for future use.

Relationship between Play and Learning

The three socio-cultural perspectives of play – cultivated, accepted and curtailed – were reflected in the stakeholders' descriptions of the play and learning relationship. The head teacher (Principal Mary), Madam Martha and Ama described a relationship that represents a cultivated activity that offers learning in itself, whilst Madam Cecilia and Efua described a relationship that recognises play as accepted and curtailed, respectively. The head teacher recognised the relationship between the two, expressing that "They go hand in hand. You cannot separate the two." Similarly, both teachers agreed play and learning are related, but differed in their expression of the relationship that exists between the two. Madam Cecilia considered the play-learning relationship as an opportunity to keep children happy whilst teaching. She explicated that:

> I don't think there is no relationship between the two. Because if I want to teach numerals, I use something, which will make them happy, so they are playing and learning the numerals as well. For example, using the rhyme, (like one little finger). I want them to know the number 1 so through the rhyme, they show their finger and learn the numeral 1 as well.

In contrast, Madam Martha regarded the play-learning relationship as inseparable, emphasising the fact that the child cannot play without learning:

> Play and learning cannot be separated. If you want learning to last longer, then it has to be put in a playful way. They learn with concrete objects. They can't learn abstractly but they need to touch and feel. A child cannot play without learning. For example, games like 'ampe'[12], the child learns to move the legs, move the legs two times, turn around are all part of learning.

Both parents shared different beliefs about the play-learning relationship. Ama, like the teachers and head teacher, affirmed that play and learning are related and highlighted the fact that playing is an opportunity for the child to learn, "Play and learning are related. Because whilst playing you learn something. Play is learning." She elaborated her viewpoint with an example, "if a child is role-playing cooking, she learns the concept something about the concept of cooking." On the contrary, Efua considered the two as separate elements, acknowledging the need to keep them apart, as she explained:

> They are not related. They are separate elements. We have to be able to separate play from learning. If you allow the child to play and you don't stop him, he has no idea that he has to stop playing and learn. If he plays for a while, he has to be stopped so he can learn. This way, he knows that when I play for a while, I have to also learn. The child thinks the playing will help him. If you leave him to play, he will play because it is play

7.3.2.5 Perceptions of different play types and their importance

The stakeholders stated examples of play activities that fall within the categories of physical, pretend play and rhymes. The examples of physical play were in two forms – exercise and fine

[12] Ampe is a game (with rules) is a game that involves clapping, jumping and coordination of feet. Before the start of the game, each player chooses what counts as a win (throwing the same feet at the same time or throwing alternate feet at the same time. When the two players jump and thrust the same feet forward, then the one chose that criterion wins and vice-versa. It is mostly played by females and can be played by two or more people.

motor play. The exercise play involved activities such as running, skipping, football and ‘ampe’, whilst the fine motor play involved activities such as playing in the sand, painting and colouring. Examples of pretend play activities included being a chief of a community, doctor, and preparing meal. The examples of play identified by the parents were based on the child’s gender. The parent who had a daughter gave examples of typical cultural play activities for girls and vice-versa.

Finding value in the different types of play was common to all the stakeholders. However, finding value in relation to the role of play in children’s learning was shared among the stakeholders, except Efua who perceived play and learning as separate elements. The stakeholders suggested benefits that children derive from engaging in the different types of play that ranged from social benefits to physical development, language development, acquiring academic skills and cultural skills as well as the happiness associated with play, as presented in Figures 7.1a and 7.1b. Principal Mary expressed the possibilities of developing writing skills, keeping children healthy, language development and career development afforded by play. Both teachers expressed play’s importance based on understanding mathematical concepts, developing interest in particular careers, developing language and keeping children healthy. Ama recognised the importance of play in relation to the acquisition of social skills and making children happy. Although Efua articulated the value of play based on the ability to keep children healthy, she emphasised the fact that children should not be allowed too much time for play because the utility of play is not great. Figure 7.1a and 7.1b present the stakeholders’ views of the importance of play. Their views were matched to the theoretical perspectives of play – classical and modern theories of play – discussed in chapter two. The term – hybrid theories – was used for those whose views embody the two theoretical perspectives.

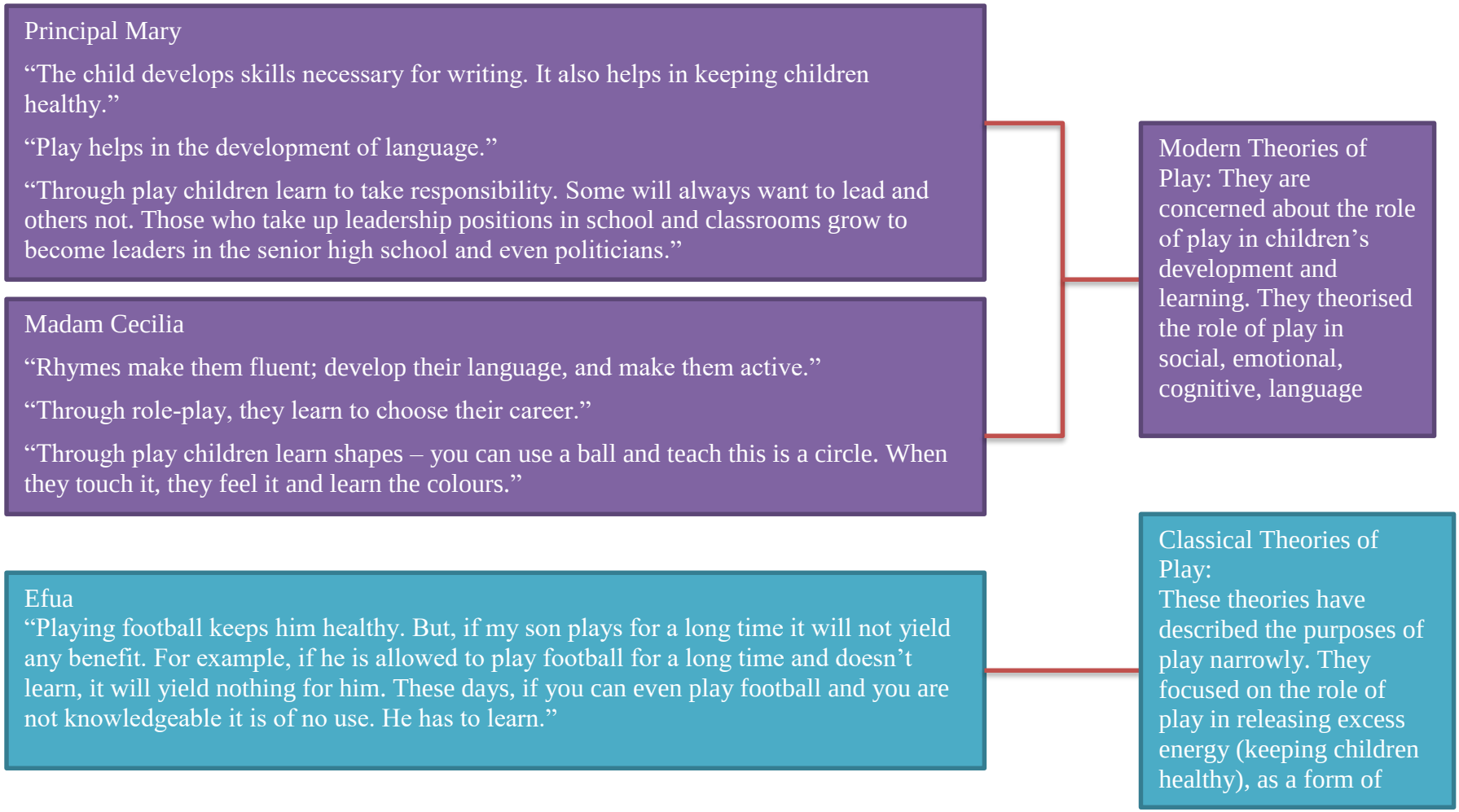


Figure 7.1a. Stakeholders' perceptions of the value of play for children

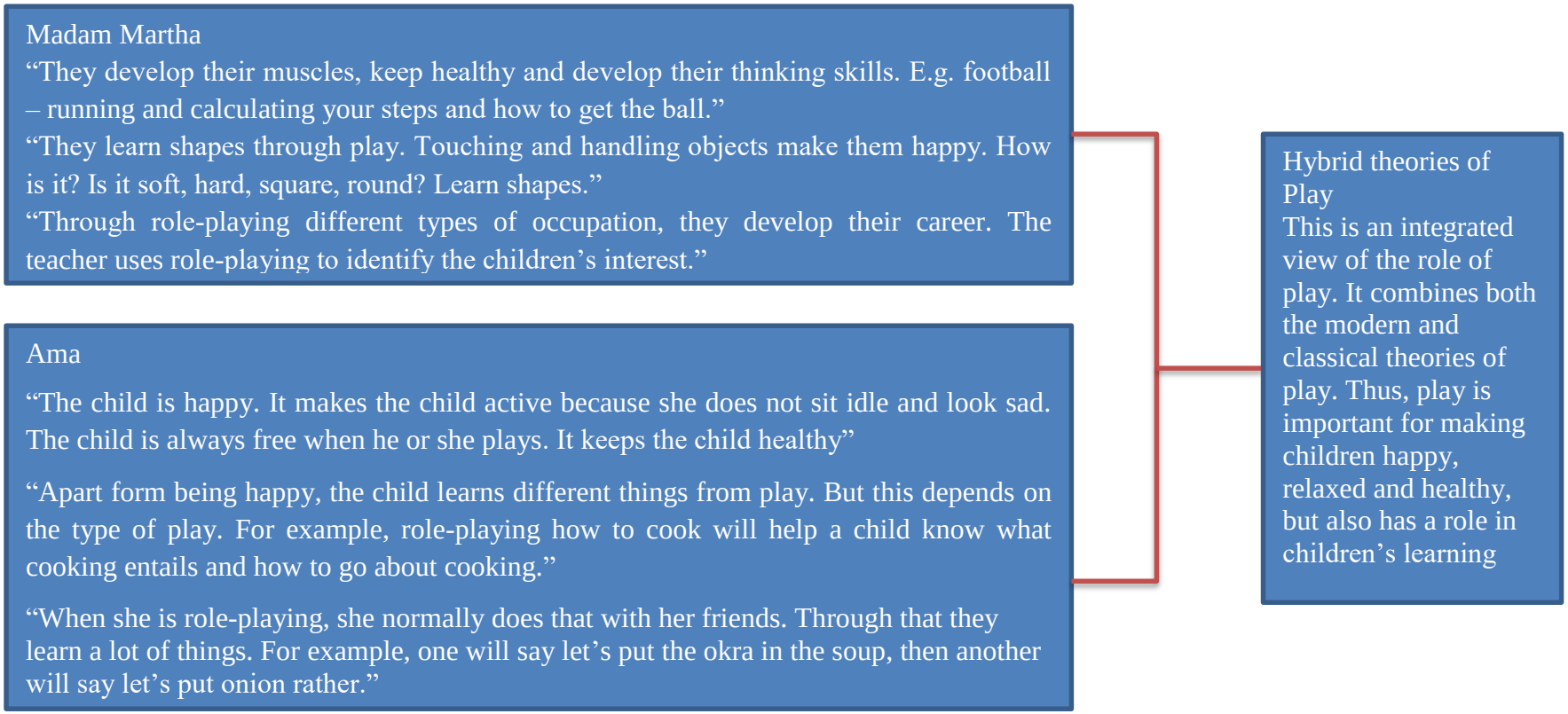


Figure 7.1b. Stakeholders' perceptions of the value of play for children

7.3.2.6 Perceived Long-term benefits of Play

Apart from uncovering what types of play stakeholders are aware of and their perceived value for children, I questioned whether stakeholders perceived any long-term benefits of play. All the stakeholders, except Efua, agreed that through play children acquire skills that last into the future. They expressed the long-term benefits of play in terms of the development of career and the acquisition of social and cultural skills. Both teachers agreed that through play children develop lasting interest for particular careers. However, Madam Martha added that through play children acquire important social skills, "they learn tolerance, respect others views and opinions, share with others, live and work with people, team work." Similarly, Principal Mary acknowledged the importance of acquiring social skills through play, "Learning to be able to arrange things, tidy up play materials, etc. Through these they learn to become organised, which becomes evident in their future lives." Expressing a similar view, Ama recognised the importance of acquiring cultural skills. She said, "It will help the child in future. In the sense that, for example, as she pretends to cook through play, she will develop cooking skills and gradually be able to cook when she grows up."

Contrary to the other three stakeholders, Efua did not consider any continuing benefits of play. She recognised that the school is a place meant for learning, not to play, emphasising that if the school is about play, then the child can be kept at home to play rather than taken to school. The following comments explains her views clearly:

> It will have no long-term benefit for the child. If it is about playing, then he can stay home and play. But it is important for him to go to school and learn something. So if you say he should come to school and play then it will be of no benefit. Play is home matters and school is for learning. If he plays his ability to become knowledgeable decreases.

7.3.2.7 Adult Role

All the stakeholders, except Efua, agreed they have a role when it comes to children's play. The adult role was viewed as multi-faceted involving provision of resources, initiating play, supervising and participating in children's play. Madam Cecilia considered her role in play to be one that involved initiating play and encouraging reserved children to participate in play. In addition, she acknowledged the need for her to participate in children's play, explaining that, "participating in children's play, for example, rhymes and physical education, makes them happy. Because they see madam doing it, they get excited and are motivated to do more." Similarly, Madam Martha considered her role to include creating a safe environment for play, participating in their play and supervising their play in order to deal with inappropriate behaviour. Expressing a similar belief, Principal Mary explained that her role included ensuring the availability of resources, allowing opportunities for play and also participating in their play. She elaborated her participation in their play with an example, "sometimes I join them in singing their rhymes and songs."

Ama perceived her role as a guide when it comes to her child's play. Although she perceived the need to guide her child's play, she provided assistance only when asked. She described an example, "sometimes, when she is playing, she will say I'm putting okra in the soup, then I will say no. Put, let's say, pepper in the soup before okra." Contrary to the other stakeholders, Efua differed in her opinion regarding the adult role. For her, the opportunity for play was only available when the child had finished his homework: "I have to ensure he does his homework before he can play."

7.3.2.8 Thinking about their Practice

The stakeholders (head teacher and teachers) were asked what was going on well in their play practice and what the constraints were. Both teachers and head teacher were pleased with the children's opportunities for play. They pointed out that children had the opportunity to explore the different learning centres in the classroom and also sing a lot of rhymes and songs. However,

Madam Martha identified external pressure from parents as a factor that impedes play and acknowledged the importance of making parents aware of the value of play for children, giving an example of how she explained why children engaged in a particular play that a parent considered unimportant. She said:

> There is this game that involves moving stones in turn and singing, which we use to develop children's fine motor skills. It involves a lot of concentration so you don't miss picking the stone and placing it in front of the next person by you. The children were asked to bring stones to school and a father came to the school complaining that they are not learning. I took the parent round and showed him all the stones, what they are used for and why they are important

Principal Mary identified two constraints on practice: intrusion from community members and the lack of resources, explaining how she is able to make some of the resources available. She explained:

> We have the swing and carousel. But because the school is not fenced, people from town come and use them and they break down easily. So they have been locked up. Also, we do not have the resources. The government is supposed to provide these things but they are not forth coming. So I discuss with the parents about the importance of the resources and they buy for their children. If you are not careful as a head, you cannot do anything because the materials are not available.

Considering these constraints, the stakeholders may allow playful activities that lend themselves to resources available.

7.3.2.9 Observation of Classroom practice

Nature of early years classroom

Both classrooms had similar settings. The seating was arranged in rows and columns. The teachers set up learning areas along the walls of the classrooms, as shown in Figure 7.2. The learning corners, such as the home, music, creative, communication and game centre were designed mostly for use in a variety of activities linked to a lesson.

Figure 7.2. Photograph of kindergarten classroom

Episodes of learning and teaching in the early years classroom

Episode 1: This episode happened in the mathematics time in kindergarten 1 (Madam Martha)

Madam Martha considered play as an opportunity for children to learn. On her class timetable, she was to teach 'shapes' under numeracy. Her belief about play in learning was reflected in her teaching of the topic. The following description of the classroom scene encapsulates her use of play:

The theme was "shapes." The teacher asks the children to recall previous lesson. The children appeared to have forgotten. The teacher engages the children to sing some songs and rhymes. Then she brings out shapes with different colours and places them on a table. She groups the children (four different groups with about six children in each group) and asks them to stand at the back of the classroom. She calls each group and asks them to arrange the shapes to form a doll. Each group was awarded marks at the end of the sorting and arrangement. The activity was repeated a number of times. Figure 7.3 shows an example of the shapes arranged by one group of children.

Figure 7.3. A photograph of the shapes arranged by the children

Episode 2: This episode happened in the writing time in Kindergarten 2 (Madam Cecilia)

Contrary to Madam Martha who regarded the role of play in children's learning, Madam Cecilia recognised play as an activity that helps children to relax when they arrive at school. On her class timetable, she was to teach 'writing' under literacy. The following classroom scenario summarises her use of play in teaching children how to write:

The teacher asks the children to stand up. She sings a rhyme and the children join in. The children are asked to mention the title of some rhymes and they sing. The teacher asks them to take their seats. The teacher draws four different lines on the board (red and blue lines). She asks children to look on the board as she writes the sentence, "The man is going." She asks children to pay attention to how each word is written in the lines. The teacher brings out children's exercise books and distributes the books to the children and asks the children to write the sentence in their exercise books (which had red and blue lines).

7.3.3 Case B: Private Urban Classroom (Brong Ahafo)

7.3.3.1 The Context of Case B

Case B is nursery and kindergarten classrooms, which are part of the junior high school, where care and education of three to five year olds are provided. The nursery and kindergarten classrooms are within the junior high school located in an urban community in the Brong Ahafo region, Ghana. Each class has about 30 children and managed by two teachers (the lead teacher and assistant teacher).

7.3.3.2 Background of Stakeholders

The head teacher had about 19 years of experience working with children from kindergarten to primary one and two. In terms of qualification, she had a certificate in education. Teacher 1 had a one-year teaching experience and had taught at the kindergarten level. He was a qualified teacher with a diploma in basic education. Teacher 2 was a middle school leaver and therefore not a qualified teacher. She had about 13 years of experience working with children between the ages of two and three (nursery children). Parent 1, who had his son enrolled in kindergarten, had a university degree as his highest level of education and worked as a police officer. Parent 2 had his son enrolled in kindergarten. He had received formal education to the level of diploma and worked as an electrician.

7.3.3.3 List of Characters

Head teacher – Principal Barbara

Teacher 1 – Sir Jerry (teacher of 4 years old children)

Teacher 2 – Madam Bertha (teacher of 3 years old children)

Parent 1 – Kofi (father with his child enrolled in kindergarten)

Parent 2 – Yaw (father with his child enrolled in kindergarten)

7.3.3.4 Perceptions of Play and Learning

Describing Play

The stakeholders shared their thoughts about play carefully. Their descriptions of play suggested play as an activity that is accepted and curtailed. The head teacher, both teachers and one parent (Kofi) theorised play as an activity that is accepted for its major function of helping teach concepts. The other parent (Yaw) characterised play as an activity that needs to be curtailed to enable effective teaching.

When asked what her thoughts are in relation to play in the classroom, Principal Barbara seemed surprised and questioned whether the classroom is a place for play. She then explained that it could involve telling stories that comprise singing and dancing, "it is a story telling whereby there are songs. It can be a circle play whereby they hold their hands and dance." Sir Jerry considered play as something that keeps children busy because children cannot sit idle and would always want to do something. His description of play in the classroom focused on activity-based lessons that allow children the greater participation in order not to keep them bored and loose attention. From his perspective, play in the class involves ensuring the availability of teaching and learning materials that the child can interact with in the course of the lesson. In other words, not teaching abstractly but with concrete objects. The following comments explains his views about play:

> Children lose attention easily so you see them playing whilst you are teaching. So you will have to call them back to what they are teaching. When the lesson is boring and too long they play a lot. The lesson needs to involve a lot of activities to keep them busy. Activities in terms of them speaking and writing to keep them busy. Listening to you for a long time makes them lose concentration. You can speak to them for a while and involve activities so they will also have a part in the lesson and keep them active.

He continued with an example:

> For example, a topic like keeping the body clean involves a lot of activities. You need to demonstrate how the child has to keep the body clean. For example, the teeth, you can

> demonstrate it. You need to bring the things into the class, like the soap, sponge so that you are teaching and showing them the materials and their attention will come on what you are teaching. You will make it in a funny way so that they will laugh and release boredom. You call the child, for example, Ama come and pick the brush instead of you the teacher picking and showing to them.

Like Principal Barbara, Madam Bertha regarded play as an opportunity for story telling, children singing and dancing with their friends in order for them to be happy. She said, "when children meet together in singing, dancing, rhyming and telling stories. Anything that amazes them and will make them laugh and become excited."

The parents shared divergent beliefs about play. Kofi regarded play as an opportunity for children to learn. However, he was of the view that learning through play only occurs when the play activity was structured and that allowing free play in the classroom will amount to children learning nothing; hence, free play should be reserved for the home. He explained:

> If play is structured, then I do not have a problem. When their timetable indicates time for them to play, I don't have a problem. But if it is not structured then I'm not sure the kid will learn anything before going home from school. He will not learn anything but just play, play, play, which will not benefit the child. When it comes to free play that will not help especially when they are in school. On weekends, when they are at home it is fine. They do their homework and play

On the contrary, Yaw was of the view that allowing play in the classroom will hinder children's acquisition of knowledge and prevent them from grasping what they are taught in class, although he recognised the need for children to have recess when they can play as indicated on their timetable. He explicated that play was:

> Good in some way because the school has a timetable and it helps to keep things organised in the school and also enhance learning. But if the child plays in class, it implies he won't be knowledgeable. When you teach something he will not know. It is good to play but it shouldn't take all of the child's time.

Describing Learning

Like the stakeholders in Case A, when asked what learning was, all the stakeholders except Bertha described it in terms of the acquisition of knowledge for use in the future. Madam Bertha described learning as a "mind-opener."

Relationship between Play and Learning

All the stakeholders agreed there is a relationship between play and learning. However, the head teacher and teachers' descriptions were not consistent with their initial recognition of play as an acceptable activity. They described a relationship that reflects play as an inherent learning activity, that is, play-as-learning. This shift in their thinking highlights the difficulty in conceptualising play. In particular, the head teacher who questioned the place of play in the classroom, together with the teachers agreed that play and learning are not separate elements but together they form a platform for learning. What emerges is that, on one hand, play may seem like an activity that should be accepted, but on the other hand, it may serve learning functions when considered in relation to learning. Perhaps, the interview served as a reflective process for them, allowing them to think through the connection between play and learning. The head teacher (Principal Mary) explained giving an example of the play-learning relationship:

> Yes, there is a lot of play that involve learning. An example is giving a child some shapes and other things to play with. So the child can sort out circles, square. Playing and at the same time learning. So a child plays and learns.

Expressing a similar view, Jerry said:

> They go hand in hand. You can't play without learning. When children play they learn. One cannot stand on its own. They are highly related. So play is equal to learning.

Like both Principal Barbara and Sir Jerry, Madam Bertha explained:

> They go hand in hand. You can learn through play. When we sing, we learn the sounds of words and new words

Contrary to the head teacher and teachers' consideration of the play-learning relationship as a platform for learning and acquiring skills, both parents' emphasised a less potential for learning

through play. For Kofi, play is acceptable as part of the school's routine, which offers a break from learning when children can relax. He said:

> They do. It will be very difficult to separate the two because you can't play all day and you can't learn all day. Definitely, you will learn for some time and play for some time. That is why they have the break time. When they come out and play for some time, they will be refreshed for the next class

Similarly, Yaw maintained the importance of accepting play for children's relaxation, but allowing only a minimal amount. He explained:

> Yes, but play should not be more than the learning. Playing will make him relax. But, he shouldn't play the game and football for too long but he has to sit behind his books and learn

7.3.3.5 Perceptions of different play types and their importance

The stakeholders gave different examples of play activities that could be categorised as physical, pretend, games, as well as rhymes. The examples of physical play could be put into two groups – exercise and fine motor play. The exercise play included activities such as playing football, running, kicking and 'ampe', whereas examples of fine motor play were playing with paper and scribbling. Examples of children's pretend play activities were being a policeman, mother and father as well as organising a meal. Also, playing with electronic games was stated as examples of games.

Finding value in different types of play was a common thing for all the stakeholders, except Bertha. Play was valued in a range of ways, including physical, social, language, cognitive development to the acquisition of academic skills, as presented in Figure 7.4. Principal Barbara acknowledged the value of play in the physical and social domains. Sir Jerry recognised the potential of acquiring writing skills and language development brought about through play as well as refreshing and keeping children busy. Interestingly, both parents (Kofi and Yaw), who considered the play-learning relationship as one that causes children to relax, found value in play beyond relaxation. They agreed play contributes to keeping children healthy and acquiring

social skills. In addition, Kofi recognised that through play children learn to understand the cultural norms of a society, whereas Yaw recognised that children through play develop their language and cognitive skills. The inconsistencies in their beliefs could be due to the fact that social skills and cognitive skills are important but are not the primary things these parents want their children to learn in school. In other words, these skills are not the type of learning these parents envisage for their children.

Contrary to the other stakeholders finding value in different types of play, Madam Bertha expressed inconsistent beliefs regarding the play-learning relationship and the value of play. She initially acknowledged play and learning go hand in hand and that through play children can learn letter sounds and vocabulary, but could not attribute any value to play when she was asked to. According to her, children play because they have not yet realised the importance of spending time with their books. At this point, the overriding benefits of play for children's development seemed irrelevant to her. Her inconsistent position on play reflects an unresolved and distorted comprehension of play. Figure 7.4 presents the stakeholders' views of the importance of play. All the stakeholders, except Madam Bertha, expressed views that embodied both classical and modern theories of play. The term – hybrid theories – was therefore used. Madam Bertha's views did not fall within any of theoretical perspectives. However, because she appeared inconclusive about the role of play, her views about the value of play were theorised as 'unresolved ideas about play'.

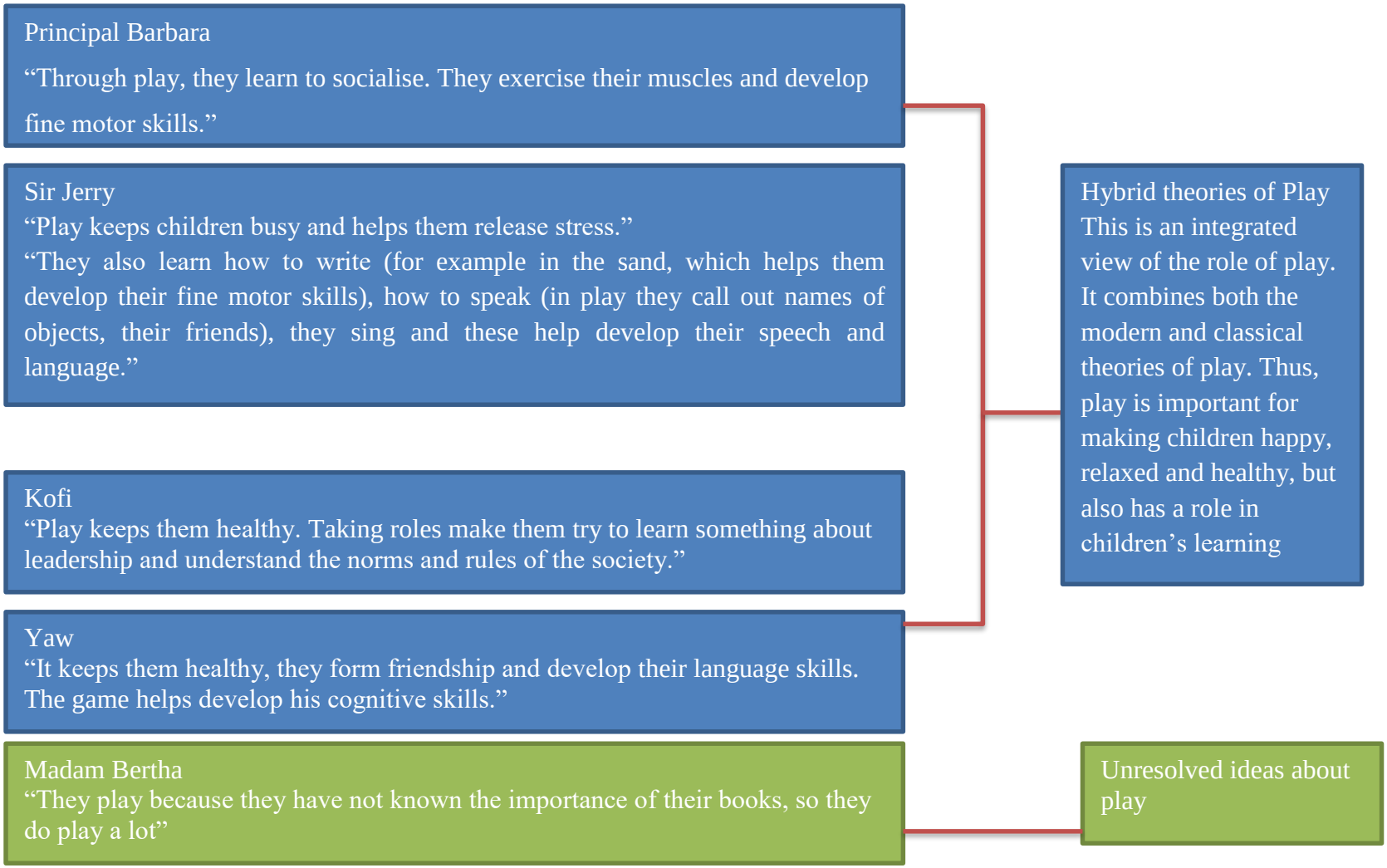


Figure 7.4. Stakeholders' perceptions of the value of play for children

7.3.3.6 Perceived Long-term Benefits of Play

All the stakeholders, except Madam Bertha, agreed that through play children acquire skills that are long lasting. They expressed the long-term benefits of play in terms of developing the concept of different types of careers and the acquisition of social, emotional and academic skills. Principal Barbara was of the view that through play children, "learn to socialise and continue to do this as they grow older." Sir Jerry recognised the lasting benefits of play in terms of the acquisition of academic and emotional skills. He said, "Those who are exposed to a lot of play opportunities tend to develop different study skills. Those who are able to regulate their emotions are more sensitive to the emotions of other people."

Similarly, Kofi and Yaw acknowledged that play is an opportunity for children to develop lasting skills. Although Yaw acknowledged this lasting benefit of play, he could not explicitly state what skills children acquire. On the contrary, Kofi expressed the lasting value of play in children's development of interest in particular careers, saying, "It influences their choice of career."

Unlike the four stakeholders, Madam Bertha did not recognise any enduring value of play for children. This was similar to her belief about the value of play presented in Figure 7.4. According to her, allowing too much play is worthless and that there is the need for children to be trained to differentiate between time for play and time for learning. The ensuing comments illustrates her views:

> Too much of playing is not good. It is not good for a child to play all time. It is good for the child to play for some time and a time to learn. I tell my children that when they go home they first take their lunch, rest and do their homework. When the child knows this the child will know the time to do different things. There is a time for the child to play and a time when the child has to do their homework and learn.

7.3.3.7 Adult Role

The role of adult was perceived as multi-faceted and included the provision of materials, participating and supporting children's play. Principal Barbara expressed the need for her to participate in children's play. She described an example of her participation in children's play, "I take part in games like tag of war and picking of fruits when we have our games on Fridays." Like Principal Barbara, both teachers (Sir Jerry and Madam Bertha) viewed their role as one that involved participating in children's play. In addition to participating in play, they recognised the importance of supervising children's play in order to prevent risky play behaviours and to resolve conflicts that arise during play. However, Sir Jerry, who already suggested children learn through play, drew a contrast between play and learning when he added, "if they are playing in the classroom and you don't instruct them, they will play without learning anything." This shift in his thinking could be interpreted as an opposition to the idea of unstructured time and lack of adult supervision.

Similar to the teachers' views, Kofi considered the importance of supervising his children's play in order to limit harmful play activities. Furthermore, he acknowledged he had a role to provide play materials and to respond to questions children ask whilst playing. In the same manner, Yaw perceived his role as involving the provision of materials and sometimes participating in his child's play. Despite identifying these roles, Yaw noted that time for play should be minimal so the child can focus on learning, suggesting a clear separation of play and learning. He explicated, "If you don't supervise him and allow him to play as much as he wants, it will affect his learning. So I have to monitor him."

7.3.3.8 Thinking about their Practice

When the stakeholders (head teacher and teachers) were asked what was going on well in their play practice and whether there were any constraints on their practice, they were in agreement that they were pleased with the opportunities available for play. They pointed out that the children had the opportunities to engage in outdoor play activities in the morning before they

begin lessons. In addition to the outdoor play activities, children are allowed 45 minutes access to a 'playroom' on Fridays (once in a week), where they play with materials available in the playroom. Figure 7.5 presents an example of children's play activities in the playroom.

In addition to recognising the fact that they were pleased with play opportunities available for children, all the stakeholders unanimously agreed they were not hindered in any way. They agreed the play opportunities available for children were adequate and there were no constraints on their practice.

Figure 7.5. A photograph of children in the playroom

7.3.3.9 Observation of Classroom Practice

Nature of early years classroom

Both the nursery and kindergarten classroom had similar physical settings. The kindergarten classroom had tables and chairs arranged in circles and rows, as shown in Figure 7.6. The seating arrangements in the nursery classroom were in circles, as shown in Figure 7.7. Both classrooms had no learning areas or corners.

Figure 7.6. A photograph of the kindergarten classroom

Figure 7.7. A photograph of the nursery classroom

Episodes of learning and teaching in the early years classroom

Episode 1. This episode happened in the mathematics time in kindergarten one (Sir Jerry)

Sir Jerry expressed a positive relationship between play and learning. He believes that learning through play requires the use of teaching and learning materials in order to keep children active and make learning interesting. His belief about learning through play was observed. The following classroom scenario summarises his use of play:

The theme was "Addition." The teacher writes mathematics questions on the board. He calls the children to the board to solve the questions. The children count using bottle corks displayed on the teachers' table and write the answer on the chalkboard. The teacher gives one of the children two pencils and adds another pencil to it. He asks the child to tell him how many pencils he had in his hands. The child counts and says "three." The teacher repeats the activity using books. The teacher repeats the activity until all the questions on the chalkboard were answered, asking the children to call out the answers. At the end of the lesson, the children were given an activity book to do a class exercise. Figure 7.8 presents a photograph of the children answering mathematics questions in their exercise books.

Figure 7.8. A photograph of kindergarten children answering mathematical questions

Episode 2. This episode happened in the numeracy time in the nursery class (Madam Bertha)

Madam Bertha expressed contradictory beliefs about the relationship between play and learning. First, she acknowledged play and learning are related. However, she did not ascribe any learning value to play when asked. She believes children play because they are children. In other words, play is a natural activity for children. She was observed teaching numerals. The following scenario shows how the lesson was presented:

The lesson theme was “numerals.” The teacher introduces the lesson by telling the children that they are going to learn to say and write numerals from 0 – 20. She writes the numeral 0 on the chalkboard and calls three children to write what she had written. She repeats the activity for the remaining numerals. She mentions the numerals and asks the children to repeat what she says. The lesson is brought to an end. The children are given exercise books to write. The teachers go round the classroom helping children write in their books. Figure 7.9 presents a photograph of the children doing mathematics exercise.

Figure 7.9. A photograph of nursery children answering mathematical questions

Here, it is important to note there were no observed differences in teaching and learning in both the nursery and kindergarten classes. Activities in both classrooms were teacher-directed and the children completed exercises at the end of the lessons.

7.3.4 Case C: Private Urban Classroom (Accra)

7.3.4.1 The Context of Case C

Case C is nursery and kindergarten classrooms, which are part of the junior high school, where care and education of three to five year olds are provided. The nursery and kindergarten classrooms are within the junior high school located in an urban community in the Greater Accra region, Ghana. The class sizes are small in number. Each of the classes has about 20 children and is managed by one teacher.

7.3.4.2 Background of Stakeholders

The head teacher was pursuing a Masters in Education and had five years of experience working with children from primary to junior high school level (that is, children between the ages of eight to fourteen). Teacher 1 was a nursery teacher who had four years of experience working with nursery children (three years old children). In terms of qualification, she had a senior high school certificate and had undertaken a six-month course in Montessori Education. Teacher 2 was a kindergarten teacher who taught four-year-old children. She had a diploma in public administration and had five years of experience working with children between the ages of three and six. She also had experience working in schools that adopt a Montessori curriculum. The parent, who had her daughter enrolled in nursery, had a degree as her highest level of education and had worked as a teacher. She had experience working with children from three to fourteen years.

7.3.4.3 List of Characters

Head teacher – Principal Martin

Teacher 1 – Madam Anna (teacher of 3 years old children)

Teacher 2 – Madam Christie (teacher of four years old children)

Parent – Esi (mother with her child enrolled in nursery)

7.3.4.4 Perceptions of Play and Learning

Describing Play

The stakeholders agreed that play makes children happy. However, when they were asked about play in the classroom, all the stakeholders, except Madam Anna, conceptualised play as an activity that can be cultivated, highlighting its role as a medium of learning. The Principal, Martin, gave a very informative response. According to him, play is a stress-free environment where children explore and understand the world around them. He recognised that because children learn freely during play, play in the classroom is a natural part of the child's learning process. He explained:

> Play is about discovery. In the sense that in play, there is no pressure so the child gets the chance to discover his or her world through the accidents, mistakes, the things he or she touches and even through the things and expressions he or she hears. Play is an essential part of learning because children lack the kind of concentration that is expected of older children. So in their case, play itself is a part of their schoolwork. We consider play as a part of the learning process.

Corroborating Principal Martin's view, Madam Christie considered play as a form of learning, explaining that although play to an observer may appear to be a waste of time, it is a process through which the child learns and develops. She said, "Play is a form of learning. But to the observer, the child might not be learning anything. But in the long run, the child learns." Although she conceptualised play as a form of learning, her response in relation to play in the classroom suggested a dichotomy between play and learning, where different time periods are set for each of them. This dichotomy represents play-for-learning and underscores the complexity of grasping the concept of play and its role in the classroom. The ensuing comments better explains this dichotomy:

> Play is important in the classroom because at this stage, if you are too serious it is a waste of time. This is because the child wants to play every time. So if you are a teacher and you are too serious it takes the child's mind off the classroom. But it is a little

> playing and a little learning. We cannot play all the time. We play a little and then learn little

Like Principal Martin and Madam Christie, Esi a parent who worked as a teacher, shared illuminating thoughts about play compared to the parents in the other cases, emphasising play-as-learning. Perhaps, her position as someone with theoretical knowledge about play made her open to the idea of learning through play, in particular structured play. She subscribed to the idea that play is a process of learning and that play in the classroom is more structured, as she explained, "they learn in the midst of play. But it is a bit formal. Through play, the child learns how to eat, pick up things from a bowl and how to hold a spoon."

Contrary to the three stakeholders' conceptualisation of play as learning and its importance in the classroom, Madam Anna regarded play as something that makes children happy, but it should not have a place in the classroom. Her response revealed that play is a reserve for the playground and that opportunities for play in the classroom should be focused on singing and rhymes. Her perception echoes play in its curtailed form. She explained briefly:

> Play is fun and something that makes children happy. The classroom should not be used for play. Play should be done in an open space. The classroom can be used for rhymes, singing and poems.

Describing Learning

Like the stakeholders in Cases A and B, all the stakeholders, except Principal Martin, described learning in terms of acquiring knowledge by the help of an adult. Expressing a different description of learning, Principal Martin considered learning as "a change in behaviour as a result of experience."

Relationship between Play and Learning

All the stakeholders, excluding Madam Anna, agreed there is a relationship between play and learning. Their perspectives of the link between play and learning consistently reflected their descriptions of play in a cultivated way, but these were not without some constraints. From

Principal Martin's perspective, this relationship is very difficult to be disconnected, however, the push towards academic preparations is very pressing because parents want evidence of what their children have learnt in school. This pressure from parents makes it difficult to give room for play. His view is well illustrated with the following:

> They are related, especially, in early years education. Sometimes it becomes very difficult to divorce the two. But the point is that we are also limited because you have to create the impression that they are learning. Some parents do not have a favourable opinion about play so we have to let them start writing, give them enough homework; we have to do some academic work so they have the assurance that they are learning. We don't have to create that impression that they are here and we are using play as form of learning so we have to give them something that is academic

Like Principal Martin, Madam Christie admitted the link between play and learning. Despite acknowledging that play and learning are related, she was concerned about the fact that there were no opportunities for play in conventional schools compared to schools that adopt the Montessori curriculum.

> There is a relationship between play and learning. I being a preschool teacher I will say there is a relationship between play and learning. However, most of these play activities are done in Montessori schools. They don't write like the way we write here, they play. They play and they have a lot of toys they use for playing. At the end they are even very good than those in the mainstream that do not play but strictly academic.

She further elaborated that due to the push towards academic readiness, the teacher has to achieve targets, which form a barrier to the idea of learning through play. She continued:

> Playing helps the child to develop. Strictly learning is the traditional learning strictly for exams but not to develop the child. Since the teacher has been given a target, at the end you have to complete the topics so the teacher has to go strictly to the topics she has been given

Expressing a similar play-learning relationship, Esi described examples of how children can learn through play in the classroom. She said:

> There is a relationship between play and learning. You get the child to learn through play. If the teacher wants the child to learn numbers and the teacher keeps writing on the board, the child gets bored. But the moment you use play just even a song or rhyme let's say 'old man Donald had a farm' the child becomes alert. He had a farm so the child gets to know what a farm is.

Esi continued:

> Again, blocks with numbers and the child puts them together according to their numbers. The child picks 1 and puts it down, looks for 2 and so on. The child is seriously learning. The child becomes very creative as well because you are developing the child's creative abilities, compared to a child who is taught directly by the teacher. That child will know the numbers but will not be creative. For me, play is equal to learning.

On the contrary, Madam Anna, who had received a Montessori training that emphasises play, did not assent to any relationship between play and learning. Although she had received such training, she did not profess that in practice probably because she needed to be certified so she can teach but did not personally consider play as valuable. She believed play and learning are two separate elements and drew a contrast between the two, suggesting time spent in play is not time spent learning. Her view emphasised her curtailed conceptualisation of play. For her, play is about fun and learning entails being attentive to what the teacher says in order to reproduce when it becomes necessary. She alluded:

> Play and learning are not related. They are two separate things. There is a time for playing and a time for learning. I'm talking about sitting in the classroom quietly and listening to what the teacher is saying so that when it comes to class exercises you can be able to write

7.3.4.5 Perceptions of different play types and their importance

The examples of play activities suggested by the stakeholders could be categorised under the following types of play – physical play, pretend play and rhymes. The examples of physical play could be categorised into two forms – exercise and fine motor play. Examples of the former included running, chasing and playing football, whilst the latter involved colouring. Examples of pretend play activities were being a doctor and teachers.

All the stakeholders found value in play. But, finding value in the role of play in learning was not a feature in Madam Anna's view. Their perceived value ranged from the physical, social to the cognitive. In addition, they expressed the importance of play in children's acquisition of academic skills, creative skills, and language development. Principal Martin expressed the value of play within the physical and social domains as well as language development. Madam Christie recognised play's importance for children's acquisition of social, academic and creative skills. Similarly, Esi expressed the value of play within the cognitive, social domains as well as acquiring academic and creative skills. Madam Anna believed that through play children become happy and active. Figure 7.10 presents the stakeholders' views of the importance of play. Their views were matched to the theoretical perspectives of play – classical and modern theories of play. The term – hybrid theories – was used for those whose views embody the two theoretical perspectives.

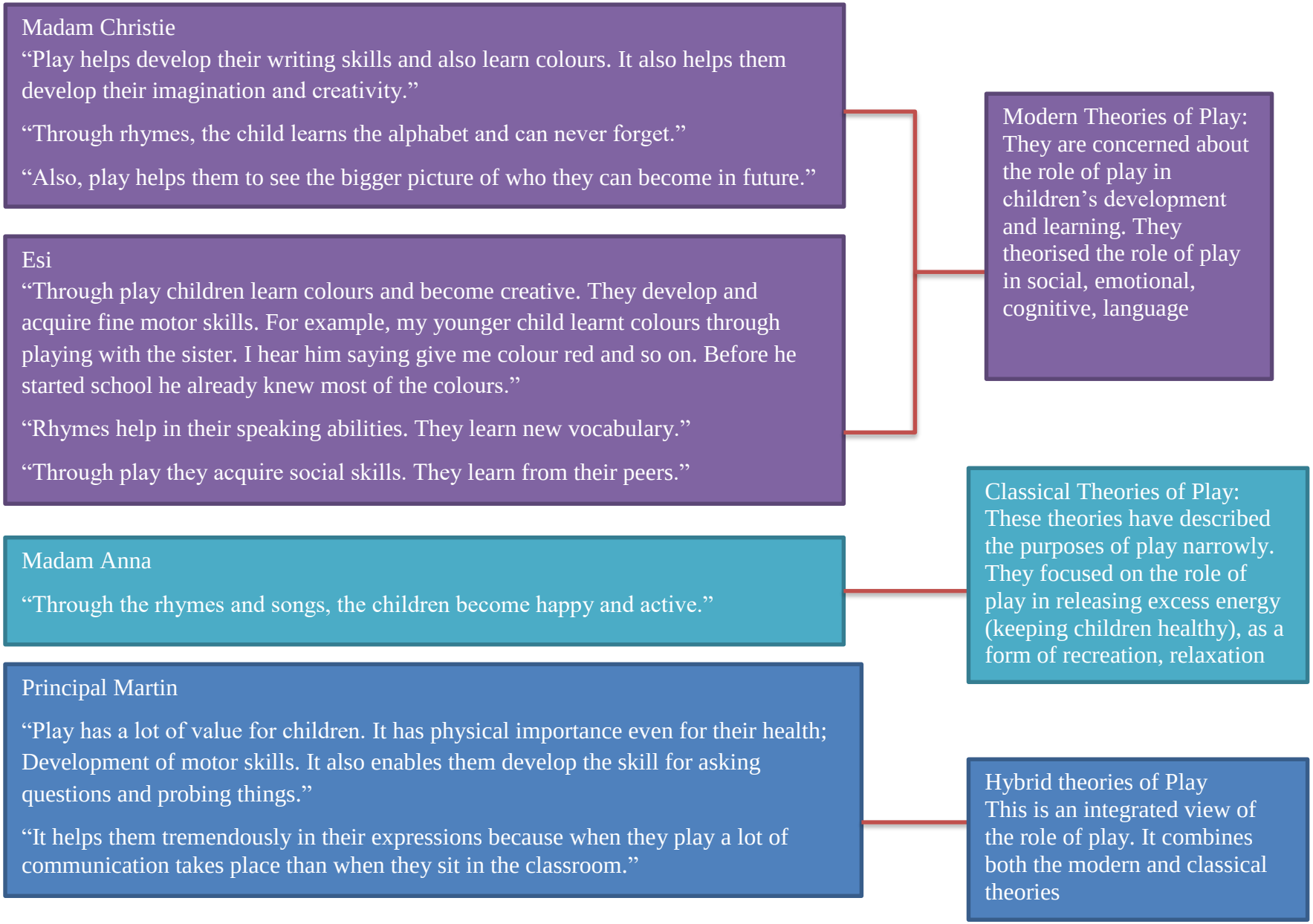


Figure 7.10. Stakeholders' perceptions of the value of play for children

7.3.4.6 Perceived Long-term Benefits of Play

The stakeholders, except Madam Anna, concurred that play at the early years could have lasting benefits for children. They professed long-term value of play in terms of children's physical and language development, acquiring social and cultural skills as well as becoming creative. Principal Martin perceived the long-term benefits of play in relation to children's physical and language development and acquisition of social skills, saying, "Play has long term benefits. In terms of mastery of expressions, contribution to their health, openness and friendliness, ability to interact and to socialise with peers." Similarly, Madam Christie expressed that play creates the opportunity for children to acquire creative thinking skills and also develop interest in particular careers as they engage in pretend play.

Corroborating their views, Esi acknowledged that play is important for developing creative skills for later use, reflecting on her personal experience and the need to allow early years children to play. She elaborated:

> I didn't get the opportunity to play. I went through the strict way. I didn't have a lot of playthings around. My daddy will not buy you toys but he will buy you books. I realised that those children who came from families where they had a lot of toys and watched cartoons were very creative. I had to struggle through. Creativity is key and my dad didn't know these things.

Explaining further, she described an example of how skills acquired in the early years can be utilised in the future:

> I even have a friend who learnt how to drive through play. He had toys cars and drove them a lot as a child. So when we became adults it was very easy for him to go through driving lessons.

In addition, she explained that through play children become exposed to important cultural skills that are needed for the future, highlighting the fact that some parents are ignorant of the skills children acquire through play and the need for parents to provide the resources that will enable their children engage in different types of play. The ensuing comments illustrates her views:

> Play has a lot of long-term benefits for children. For example, acquiring cultural skills like learning to cook. So it will be very useful if you as a parent have the income, you can even buy toy TV, toy sewing machine, mortar and pestle, saucepan and cooking utensils. Even when you are preparing fufu (the traditional meal), you can give her some of the cassava and she will also prepare hers in her mortar, except that hers is not eatable. These things help them a lot. Just that some parents are not aware.

7.3.4.7 Adult Role

All the stakeholders agreed they have a role in children's play. Their role as an adult in play was perceived as dimensional and included the provision of materials, supervising, guiding, observing and participating in children's play. Principal Martin expressed his role in relation to the provision of resources and also encouraging teachers to supervise children during play. Similarly, Madam Christie regarded her role as one that involved observation and supervision, explaining:

> I have to observe the child's play to identify the child's potentials and interests. Some of the children are so quiet when you are teaching but they are different when they are playing. Also, supervising the child's play.

Like Principal Martin and Madam Christie, Esi perceived her role in her child's play involved the provision of resources, providing guidance and participating her child's play. For her, participating in her child's play creates an attachment, explaining, "I participate in my child's play because I do not want to be left out. It binds us together."

Unlike the other stakeholders, although Madam Anna acknowledged she had a role in children's play, her response points to the fact she considered her role in relation to her duty as a teacher rather than her role in play. Consequently, she perceived her role as one that involved ensuring the children are taught effectively, saying, "I have to guide the children to learn and learn very well. I have to teach them to write and teach them other skills".

7.3.4.8 Thinking about their Practice

When the stakeholders (head teacher and teachers) were asked what was going well in their play practice and what the constraints were, all, except Madam Anna, professed they were not pleased with the play opportunities available and identified factors that constraint their practice. The stakeholders indicated that children had the opportunity to play during the time for recess and say some rhymes and songs. What this means that, although the stakeholders have a developed concept of play as an activity that can be cultivated to develop children, translating this into practice may be challenging, which could lead to exhibiting an over-simplified form of play in practice. Principal Martin identified three constraints on practice – pressure from parents, competition among schools and lack of opportunities for play. With regards to pressure from parents, he was of the view that parents lack trust in the power of play as a form of learning and would not want schools giving room for play, as he explained succinctly:

> The word 'play' is unpopular, especially among parents with little or no education. They see it as something that should not be allowed. They sort of look at it in this way: if you can play in the house why do you have to come to school and play

With regards to the competitive nature of schools, he explained how the school has to comply with the prevailing systems of education in order to remain in business. This suggests that although the school might be aware of the importance of play, the pressure to conform to the social and cultural norms of education serves as a hindrance to play. Principal Martin continued:

> Again, we are trying to open up the market. This is a business so any impression that would result in unbalanced opinion about the school should be dealt with. We are dealing with parents who for the most part are uneducated. So we have to bear in mind how we go about things. In a way we have to be able to integrate let me say 'play' and what they see as serious learning, that is the child being taught

In an effort to please parents and conform to the education systems, Principal Martin explained that play is treated with no regard. He highlighted that even though the school has a number of resources, play is only a reserve for recess. Consequently, apart from recess when children get

the chance to play with friends, play in the classroom is at the discretion of the teacher. He elaborated:

> The school has a lot of resources, for example, toys, Lego and so many things. But it depends on the teacher's request. But the challenge we have is that play is not treated as component demanding attention here. So as and when the teachers feel like they come for play materials. We encourage it but we don't make any allowance or room for it on the timetable, apart from break. So the teachers use their own discretion.

Like the head teacher, Madam Christie identified pressure from school management and parents as constraints on practice. She felt that the school management was not open to the notion of learning through play because she had to meet strict targets that could only be achieved through direct instruction:

> The teacher is much hindered. In the sense that you have been given a scheme of work and you have a supervisor who is supervising to make sure you are doing things, as you should. One hour for each lesson so he comes round to check what you are doing. Whether you are within time or doing other things. So we work within time. We are hindered so much because of the time. We are also given targets. For example, you have two children in your classroom who are weak. You are given one month so they can pick up. If these children cannot pick up it means you are not doing your best and you will be queried for that.

Madam Christie felt that pressure from parents contributed to the pressure from the school management. She continued:

> Because it is a private school the school mostly sides with parents. So we are restricted. What they want is what we do for them. Parents always want to see their children's exercise books full, giving them homework. If a child goes home to tell the parent, mummy we played all day, you are in trouble. So we have to make sure they write all the time, which in fact is not helping. We have the resources but they are of no use.

For Madam Christie, despite the fact that she trusts the power of play, the pressure that she perceived from the school management and parents caused her to be committed to creating an academic environment and used play as a way to draw children's attention, as she said,

> In the class before we start a lesson we start with rhymes, something just to draw their attention before the topic is introduced. You do something pertaining to play before you introduce the topic.

Contrasting the thoughts of the head teacher and her colleague, Madam Anna did not identify any constraints to her practice. It seemed there were no background factors that influenced her practice. This could be attributed to her belief that the school is not meant for play. “I am not hindered in any way. I am able to teach as I have to,” said Madam Anna.

7.3.4.9 Observation of classroom practice

Nature of classroom

Both the nursery and kindergarten classroom had similar physical settings. The rooms had tables and chairs arranged in rows and columns, as presented in Figures 7.11 and 7.12. There were no corners for different learning activities. The children sit and look on the board as the teacher writes.

Figure 7.11. A photograph of the nursery classroom

Figure 7.12. A photograph of the kindergarten classroom

Episodes of learning and teaching in the early years classroom

Episode 1. This episode happened in the creativity time in the nursery class (Madam Anna)

Madam Anna considered play as a curtailed activity with a limited value of making children happy and active. She considered play and learning as separate elements. For her, play should be separated from serious learning when children are made to sit and listen attentively to the teacher. However, she believes play in the form of songs and rhymes can be used to initiate lessons as a way to capture children's attention. Her intentions about play were found to be consistent with her actions. The following classroom scenario, which was focused on teaching children to be creative, reflects her use of play:

The class begins with recitals of rhymes (e.g. one little finger, one little finger, clap…). The teacher asks the children to take their seats. The topic for the lesson was 'colouring of objects.' The teacher asks children to name objects in the classroom. The teacher guides the children to name some of the things in the classroom. The teacher draws an object (a pencil) on the chalkboard. The teacher draws the pencil in children's exercise books. The teacher picks a colour and shows to the children and asks what colour is it? A child answers, 'Red.' The teacher

repeats the activity with other colours. She gives the exercise books to the children and gives each child a colour pencil. Figure 7.13 shows an example of children's exercise at the end of the lesson.

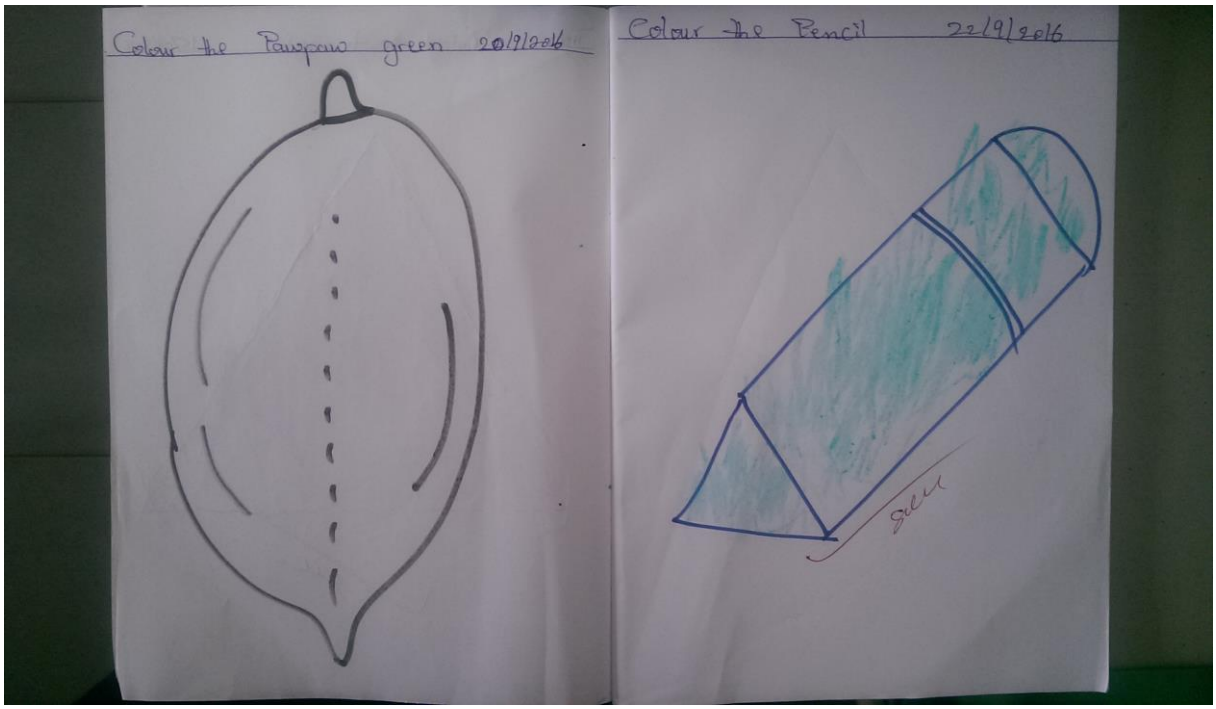


Figure 7.13. A photograph of nursery children's creativity exercise

During the period of observation, a few moments of spontaneous play among the children were witnessed. These were moments of activities involving pretence freely initiated by children during transitional class activities. However, it is worth noting that these were unique to this case. Spontaneous play activities in the classroom were not witnessed for the rest of the cases.

Despite the teacher-centred nature of the lesson, a scenario of playfulness among the children was captured during the transitional period when the teacher was drawing the pencil in the exercise books. The following episode reveals two children reaching a state of playfulness during the transitional period.

Episode 2: Children pretend to be in the market

Child 1 (Seller): What will you buy?

Child 2 (Buyer): I will buy a doll

Child 1 (Seller): Give me money

Child 2 (Buyer): Have it

Child 1 (Seller): Pretends to put the doll (a handkerchief) in an imaginary bag

Child 2 (Buyer): Put it in a bag for me

Child 2 (Buyer): You didn't give me change

Child 1 (Seller): Oh, 50 pesewas

Episode 3. This episode occurred in the mathematics time in kindergarten class (Madam Christie)

Madam Christie expressed a positive view about the role of play in children's learning. She suggested play could be cultivated for children's development. However, as a teacher, she believed she was constrained and could not allow play in the classroom. Due to the constraining factors, rhymes and songs are the play activities allowed. In other words, although she believed in the power of play, the opportunities for play are very limited, which was highlighted by the head teacher. Her intentions about play and her actions lacked congruence. The following illustrates how she taught numerals:

The lesson begins with a rhyme (once I got a fish alive). The teacher asks the children to take their seats. The teacher writes numerals from 0 to 20 on the chalkboard, with some missing numbers. The teacher calls the children to the chalkboard to fill in the missing numbers. The teacher guides children who are unable to identify the missing number. The lesson is brought to an end and the teacher distributes exercise books for a class assignment. A photograph of the scored class assignment is shown in Figure 7.14.

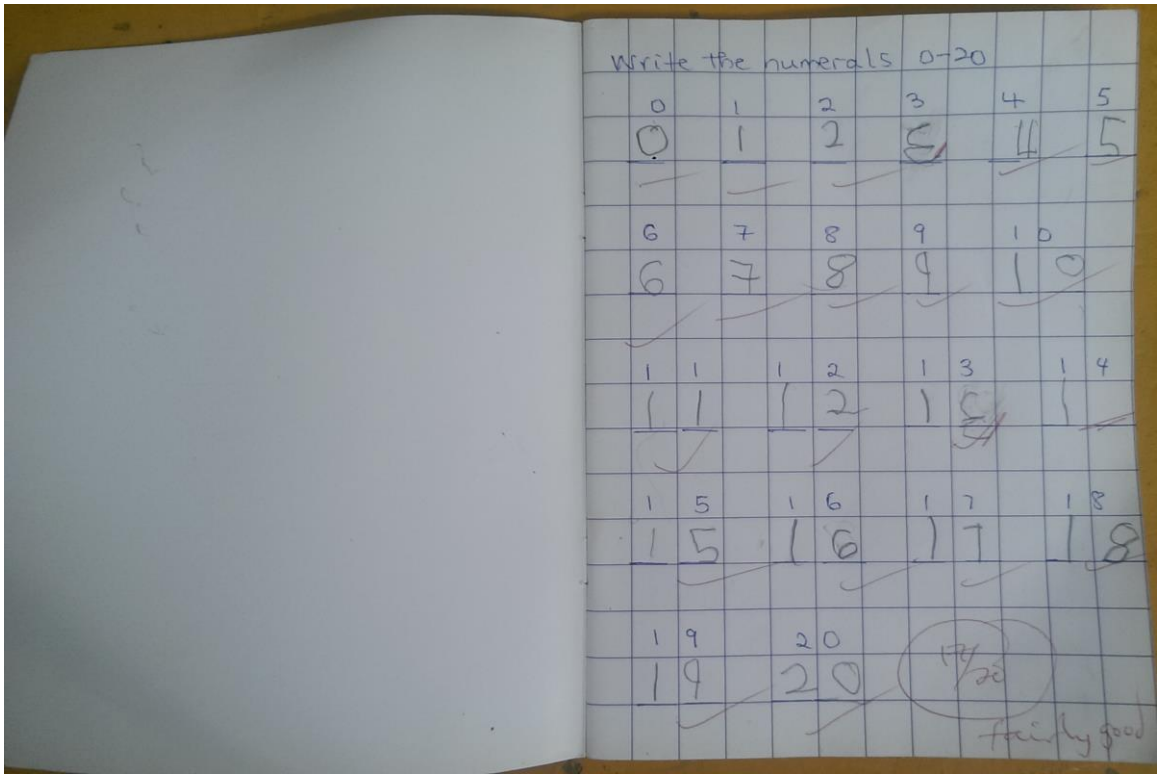


Figure 7.14. A photograph of a kindergarten child's numeracy exercise

During the period when the children were asked to work in their exercise books, a play scenario was observed. The following episode reveals a solitary play of a boy during the period of completing his exercise.

Episode 4: A boy pretends to be rowing

The boy stops writing for a while. He uses his exercise book as a boat and the table as the sea. He moves his book on the table whilst singing, row, row, row your boat. Gently on the sea. He does this for a while and stops. He opens his book and continues writing.

The two episodes of children's play (children pretending to be in the market and boy rowing) reflect some of the common defining characteristics of play. For example, both play scenarios were spontaneous and voluntary. The children had no intended goal. So the activities lacked extrinsic goal but it was pleasurable and enjoying for the children. The children were also actively engaged in their play.

Like Case B (private urban, Brong Ahafo), it is important to note that there were no observed differences in teaching and learning in both the nursery and kindergarten classes in Case C

(private urban, Accra). Although different types of lessons (creativity in nursery and mathematics in kindergarten) were observed, activities in both classrooms were teacher-directed, beginning with the teachers initiating rhymes, introducing the topics, getting children to participate and the children completing exercises at the end of the lessons.

7.3.5 Case D: Public Rural Classroom (Accra)

7.3.5.1 The Context of Case D

Case D is kindergarten classrooms, which are part of the junior high school, where care and education of four and five year olds are provided. The kindergarten classrooms are part of the junior high school situated in a rural community in the Greater Accra region, Ghana. Each class has about 60 children and is managed by four teachers.

7.3.5.2 Background of Stakeholders

Profiling each stakeholder with his or her personal details revealed that the head teacher had a bachelor's degree in sociology and geography. He had over 20 years experience of working with children from primary to the junior high school level (children aged 6 to 13 years). Teacher 1, who provided care and education for five years old children, had a diploma in basic education and had 22 years experience working with children between ages four to eight. Teacher 2, who provided care and education for four years old children, also had a diploma in basic education. She had 32 years of experience working with children from kindergarten to primary (from 4 to 10 years old children). Both parents had received formal education to the primary level and worked as traders.

7.3.5.3 List of Characters

Head teacher – Principal Richard

Teacher 1 – Madam Angela (teacher of five years old children)

Teacher 2 – Madam Bernice (teacher of four years old children)

Parent 1 – Adwoa (mother with her child enrolled in kindergarten)

Parent 2 – Yaa (mother with her child enrolled in kindergarten)

7.3.5.4 Perceptions of Play and Learning

Describing Play

All the stakeholders were in agreement that play makes children happy, but, shared different views about play in the classroom. Collectively, their preliminary description of play in the classroom characterised play in an accepted form, involving elements of its contribution to teaching activities. Principal Richard attributed to the description of play in the classroom the idea "of a structured activity tailored towards achieving an aim." As he shared his ideas of play further, it was obvious that "structured" included the teachers' supervision of the play activity. Madam Angela's ideas about play in the classroom focused on children dramatizing lessons taught. She pointed out that "role-playing, for example, the family, allows children to grasp what you are teaching very fast and understand the lesson." She considered play in the classroom as "serious", but this was in demonstration of a taught lesson. Madam Angela's co-worker, Madam Bernice also agreed play in the classroom is "very important." Like her colleague, Madam Angela's consideration of the importance of play lies in the fact that it makes lessons "very practical for children." She described an example of the practicality of play in teaching, saying:

> When you are teaching a lesson about kitchen and you have all the kitchen materials to demonstrate to them. As they hold it, they touch it, they put here and there it sets their minds on the real things so they can participate very well during the lesson.

Adwoa, acknowledged the importance of play in the classroom. However, she conceptualised play as a refreshing activity that makes children active in class. Based on her conceptualisation, she noted the importance of recess and how it is linked to children's ability to concentrate in class:

> If children learn for long periods without break they will get tired. Some of them may even cry. But if they are allowed to have breaks in order for them to play, they will come back feeling refreshed and happy to learn again.

Sharing a similar view, Yaa noted that play should take place only when "children are done with their learning and do not have any class exercises." As she shared her views further, she cited an example of a play scenario she witnessed when she paid a visit to the school. She explained that the teachers initiated this play when the children were not doing an exercise, "the teachers brought up a song and they all started singing and they were clapping and some of them were even hitting the table."

Describing learning

In reviewing the stakeholders' responses related to learning, I realised that they shared different descriptions. Principal Richard described it "as a positive change in behaviour." Both teachers, Madam Angela and Bernice, as well as Adwoa described learning "as the acquisition of knowledge." Yaa attributed to the definition of learning the idea of "being focused on your work." She added that learning is "something serious" that leaves no room for play so children can "concentrate on their work so they can secure a good future."

Relationship between Play and Learning

All the stakeholders, except Yaa, considered a relationship between play and learning, but there were some differences. Whereas the head teacher (Principal Richard) and Madam Bernice acknowledged a relationship that depicts play-for-learning, Madam Angela and Adwoa recognised a relationship that emphasises play-as-learning, contrasting their initial descriptions of play as accepted. Principal Richard viewed this relationship as one that refreshes children. He added that, "when you are teaching and the children are tired, it is ok to intersperse it with some drama so the children can relax." Similarly, Madam Bernice also acknowledged the link between play and learning, highlighting that through play the teacher "can draw children's attention to what he or she wants them to keep in mind."

On the contrary, Madam Angela noted that play and learning are inseparable and described an example of the play-learning relationship, "a child scribbling in the sand is acquiring writing skills. It is play but the child is learning." Adwoa's response about the play-learning relationship

was very informative. Although her initial description of play indicated a break from learning, she pointed out that "learning and playing are both learning." Her recognition of play as learning is based on her personal observation of her children's play and the fact that not every skill, for example, cultural skills can be taught by teachers. As she further described this relationship, she emphasised that both teacher-directed teaching and play opportunities should be employed at the early years:

> There should be the time when the child is taught certain things and the time when the child should be allowed to play so that she can learn certain things on her own. They are both learning.

Unlike the other four stakeholders who at least identified a relationship between play and learning, Yaa did not consider any relationship between play and learning. She made reference to the Bible and how it highlights that there is time for everything. It is therefore not possible that time meant to be spent in school learning should be replaced with play, which is a clear indication of her interpretation of play and learning as distinct elements and the fact that play should be curtailed. The following comments explains her view:

> They are not related. Because the Bible even makes us understand that there is time for everything. So you can't combine play and learning at the same time. If you are learning, you are learning. If it is time for play, it is time for play. We can never put play and learning together.

7.3.5.5 Perceptions of different types of play and their importance

The stakeholders' examples of play can be categorised under physical, pretend, game play, and rhymes. The stakeholders mutually gave examples of physical play, which could be categorised into two forms – exercise and fine motor play. Exercise play involved activities such as running, chasing, playing football, skipping and 'ampe'. Examples of fine motor activities provided by the stakeholders were scribbling in the sand and colouring. Pretend play experiences, such as being mothers, fathers and teachers, going to the market and organising a meal, were the

examples identified by stakeholders. Game play, bound by rules, was also stated. Examples were cultural specific games such as 'ludo'[13] and 'oware'[14]

Finding value in play was universal to all the stakeholders. Each stakeholder in his or her own way expressed value to be found in play. They suggested the physical, social, and language possibilities of play as well as the acquisition of academic skills, as shown in Figure 7.15. Principal Richard expressed the potential of learning mathematical concepts and acquiring social skills. Madam Angela saw the possibility of learning to count and keeping healthy through play. Her colleague, Madam Bernice expressed the acquisition of numeracy skills, keeping fit and developing interest in career afforded by play. Adwoa observed the manipulation of language, in addition to keeping healthy and the acquisition of cultural skills such learning to do house chores, brought about through play. Countering the value of play, however, she expressed concern regarding the development of bad habits and the need for parents to "keep an eye on their children." The second parent, Yaa, saw the physical benefit of keeping healthy through play. Figure 7.15 presents a summary of the stakeholders' perceptions about the importance of play. Their views were matched to the theoretical perspectives of play – classical and modern theories of play. The term – hybrid theories – was used for those whose views embody the two theoretical perspectives.

7.3.5.6 Perceived long-term Benefits of Play

All the stakeholders, except Yaa, perceived play could have enduring benefits for children. They observed the lasting benefits of play in the social and physical domains. Principal Richard was of the view that because children engage in a lot of group play, they acquire social skills such as "collaboration, tolerance, cooperation and team work", which they carry into adult life. Both teachers expressed the long-term value of play in terms of children developing interest in

[13] Ludo is a board game for two to four players, in which the players race their race their four tokens from start to finish according to the rolls of a die

[14] Oware is a board game or pit and pebbles game played by two people. It involves the distribution and removal of pebbles around the board based on a number of rules.

particular careers. One of the parents, Adwoa, observed that through play children keep fit and this has a lasting impact on their health.

Contrary to the stakeholders who expressed lasting value of play, Yaa, who considered play as only a form exercise, did not perceive play could have any long-term benefits for children. She observed that allowing play would put the child's future in jeopardy and emphasised the fact that the child needs to be taught rather than given the room to play:

> If he is allowed to play his future will be in trouble. His seriousness to learn has to be more than play. By this I mean reading books, writing. I need these more than the play.

Yaa continued:

> Sometimes when he is even playing I stop him and ask if he was not given homework. If he has homework, then I will make him stop the playing and do his homework. But if he has nothing from school then I leave him to play. Learning will help his future compared to play.

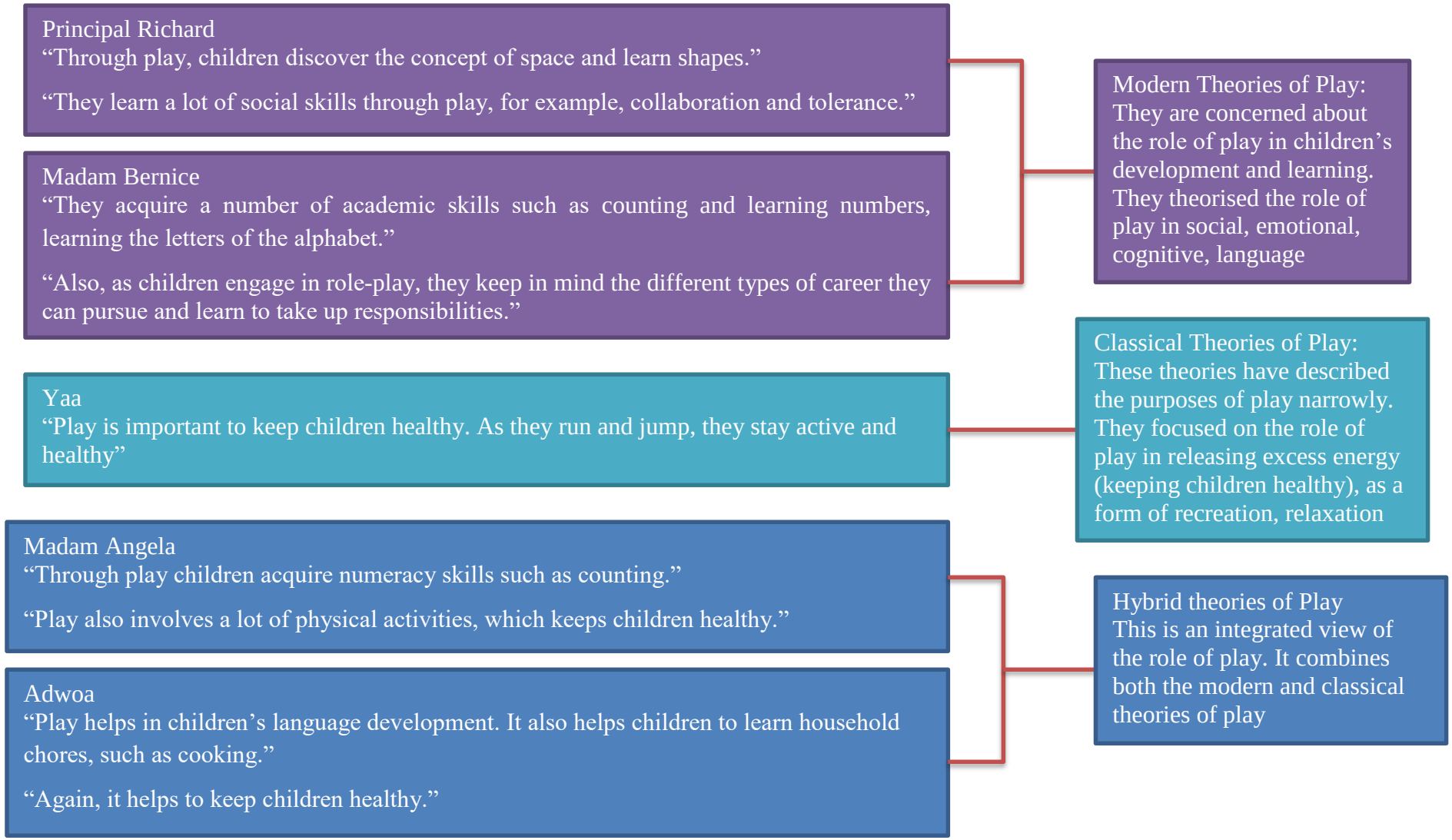


Figure 7.15. Stakeholders' perceptions of the value of play for children

7.3.5.7 Adult Role

The role of the adult was perceived as multi-dimensional and involved the provision of resources, observing, guiding and supervising children's play, in addition to participating in children's play. Principal Richard expressed his role in terms of providing resources for play, ensuring the teachers allow play opportunities and sometimes participating in children's play. Madam Angela saw her role to include observing, supervising and participating in children's play. Madam Bernice considered her role included providing resources and guidance during play. For her, her role as a guide is essential because "for play to become profitable for children, you have to point out certain things for them and demonstrate certain things for them." Both parents perceived their role to include the provision of materials, supervising and participating in their children's play. However, Yaa stressed that she "only participated in her child's play when she has nothing doing."

7.3.5.8 Thinking about their Practice

The stakeholders (head teacher and teachers) were asked what was going well in their play practice and what the constraints are. Collectively, the stakeholders agreed they were not pleased with the play opportunities available for the children. They pointed out that children had the opportunity to play during recess and also sing some songs. Furthermore, they identified a number of constraints on practice – lack of resources, limited space and intrusion from community members. The stakeholders all felt the classrooms were not spacious to allow free movement of children and there were no resources. Principal Richard indicated that "not only is the classroom space limited, but the school compound is not a safe environment and therefore not conducive for play." Madam Angela echoed this sentiment, saying, "the classroom is not spacious." Adding to their concerns, Madam Bernice explained that, "due to the limited space, both the children and teachers cannot move freely and the teacher can only stand in front of the classroom and be shouting."

With regards to the resources, all the stakeholders recognised the fact that they had no resources that allow children engage in different types of play. As they explained, they pointed out the fact the government, who has the responsibility to provide resources for the school, is doing very little to ensure the resources are available. However, they believed they do their best with the few resources available and also improvise. In addition to the limited resources available, the head teacher indicated that people from the community meddled with the few resources they had on the playground since "the school is not walled." As a result, the existing ones have been damaged and there were no outdoor play equipment for children.

Although the stakeholders expressed dissatisfaction about the play opportunities and resources available, their concepts of play as an accepted activity that reflects play-for-learning leaves room for questioning whether their concerns are towards play as an inherent learning platform.

7.3.5.9 Observation of classroom practice

Nature of classroom

Both kindergarten classrooms had similar settings. The classrooms were filled with tables and chairs and the seating was arranged in circles as shown in Figure 7.16. There were no areas for different learning activities. The children remain seated during lessons and look on the board as the teacher writes.

Figure 7.16. A photograph of the kindergarten classroom
Note: Although enrolment in the kindergarten class is about 60, not all the children come to school regularly. Hence, the total number of children present at the time of the study may not be 60.

Episodes of learning and teaching in the early years classroom

Episode 1: This episode happened in the environmental studies time in the kindergarten classroom (Madam Bernice)

Madam Bernice described play as a very practical way of learning. According to her, this involves the use of teaching and learning materials. However, the teaching and learning episode observed indicate a mismatch between her belief her practice. This mismatch could be attributed to the large class size and lack of resources, which were identified by the teachers and head teacher as constraining factors. The following encapsulates a teaching scenario, which was teacher-directed.

The topic of the lesson was "Myself." The teacher introduces the topic by telling children about herself. She asks children to say something about themselves. The teacher draws a human head on the board and labels the parts (hair, nose, eyes, etc.). The teacher brings the lesson to an end and draws a human ear in the children's exercise books. She distributes the books to the children and asks them to colour the ear. After the class exercise, the teacher guides the children to sing a

song with actions. The teacher sings several times for children to imitate. Song: run around the garden like a teddy bear… The teacher explains garden to children pointing to a garden in someone's house (behind the classroom). The children peep to look at the garden. The teacher pairs the children and they sing.

Episode 2: This episode happened in the social and moral education time in the kindergarten classroom (Madam Angela)

Madam Angela expressed a positive view of play, emphasising that it facilitates teaching and helps children understand lessons taught. Although she positively viewed play, it was in relation to using teaching materials to demonstrate to children. So the child sees, touches and understands. The following scenario reflects how she utilised play:

The theme of the lesson was "The Home." Before the teacher begins the lesson, she asks the children to recite a rhyme. After the recitation, the teacher asks children to sit and fold their arms. The teacher introduces the topic by asking children to mention the name of where they are seated. Some of the children respond, "the classroom." The teacher continues and asks the question, "where did you come from?" Some of the children respond to the question mentioning where they live. The teacher uses houses around the school to differentiate between house and home. The teacher draws a house on the chalkboard. The teacher uses a picture chart to explain types of houses. The teacher realises most of the children were not paying attention (some had put their heads on the table and others were chatting). The teacher intersperses the lesson with a song. After the song, the teacher describes her home and asks some of the children to describe their home.

During the period of the study, activities of formal assessment of children's learning were observed for this case. Formal assessments in the form of examinations were conducted to measure trends in children's level of achievement. The main purpose of the assessment was to determine learner achievement at critical transition points, which lie between the kindergarten and primary phases. The examination comprised tests in the different learning areas: creative

arts, environmental studies, numeracy, language and literacy as well as social and moral education (although social and moral education is not stated in the curriculum). The individual tests were scored and awarded marks. A child's score on the individual tests were graded as excellent, good or fail. The child's position was ranked based on the sum of scores of the individual tests. Figures 7.17 and 7.18 show examples of a test and the grading of all the individual tests, respectively.

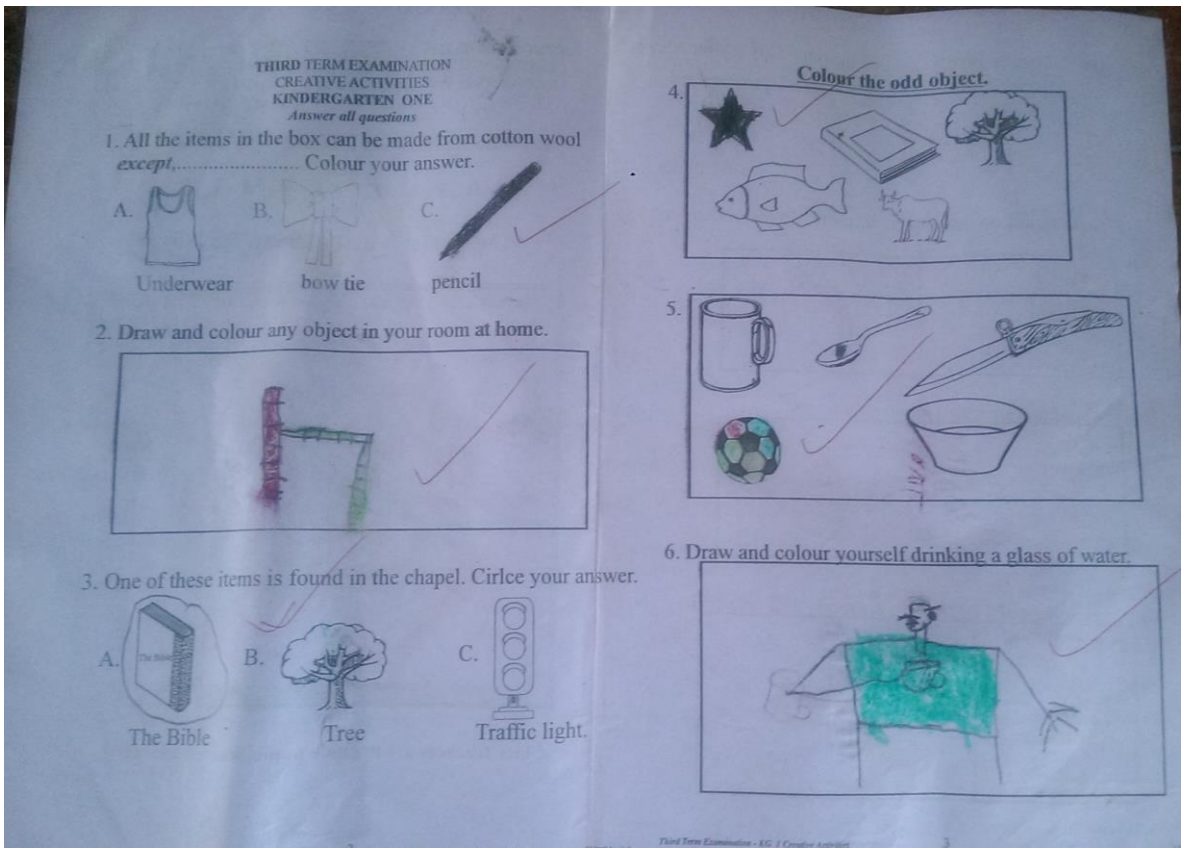
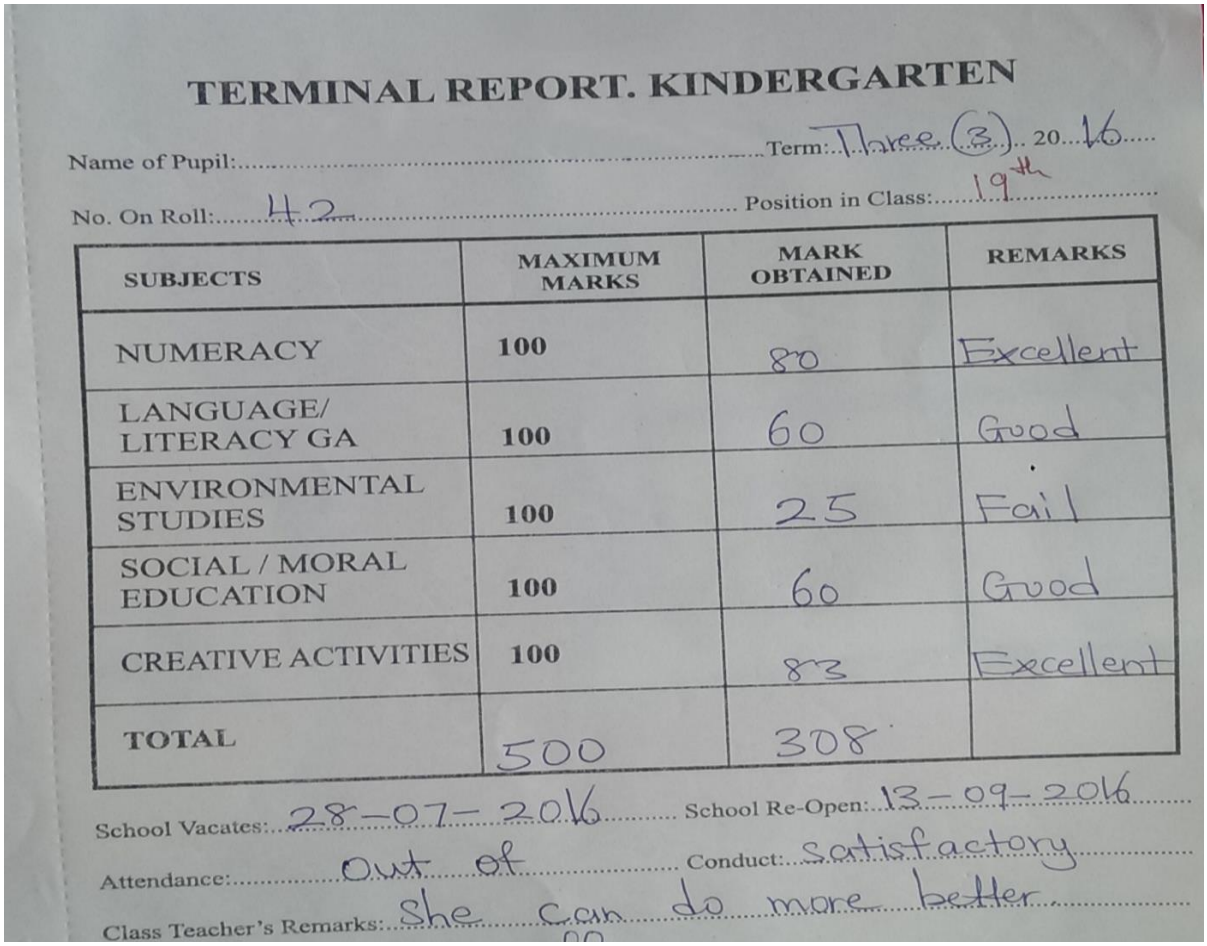


Figure 7.17. An example of a test in creative arts for a child in kindergarten



TERMINAL REPORT. KINDERGARTEN

Name of Pupil:..... Term: Three (3) 20 16

No. On Roll: 42 Position in Class: 19th

SUBJECTS	MAXIMUM MARKS	MARK OBTAINED	REMARKS
NUMERACY	100	80	Excellent
LANGUAGE/ LITERACY GA	100	60	Good
ENVIRONMENTAL STUDIES	100	25	Fail
SOCIAL / MORAL EDUCATION	100	60	Good
CREATIVE ACTIVITIES	100	83	Excellent
TOTAL	500	308	

School Vacates: 28-07-2016 School Re-Open: 13-09-2016

Attendance: Out of Conduct: satisfactory

Class Teacher's Remarks: She can do more better

Figure 7.18. An example of final grading of the individual tests for a child in kindergarten

7.3.6 Case Comparisons

7.3.6.1 List of Cases

Case A – Public rural classroom in Brong Ahafo

Case B – Private urban classroom in Brong Ahafo

Case C – Private urban classroom in Greater Accra

Case D – Public rural classroom in Greater Accra

7.3.6.2 Perceptions of Play and Learning

A general finding in the studied cases is that play is something that makes children happy. However, in terms of play in the classroom, there were some differences. For the majority of the cases, play in the classroom is important, but served different purposes. Generally, for three of the cases (cases A, B, and D), play in the classroom appears to be an accepted activity. For cases A and D, it serves the purpose of sustaining lessons being taught, which takes the form of making lessons practical and commencing lessons with rhymes. For Case B, play in the classroom served the purpose of keeping children occupied; storytelling, and a recess activity. Only one stakeholder considered play in the classroom as a form of learning. On the whole, case C was a unique case. This is because the stakeholders, except one teacher, agreed play in the classroom is an important opportunity for children to learn.

In describing what learning is, it is interesting to note that most of the cases described learning as the acquisition of knowledge. A slight difference was found in cases C and D, where the head teachers described learning as "a positive change in behaviour." The description of learning as 'knowledge acquisition' influenced how most of the stakeholders perceived the relationship between play and learning. For most of the stakeholders, acquiring knowledge involves direct instruction from an adult with knowledge on a particular topic area. Therefore, although almost all the stakeholders across all the cases noted a relationship between play and learning, there were some significant differences. Put together, the play and learning relationship was expressed

in three different ways, ranging from those that recognise play as learning; those that recognise the emotional state of allowing children to play (happy, refreshment and relaxation); and those that consider play and learning as separate elements. With regards to the first category, play and learning cannot be separated; implying that time spent in play is also time spent learning.

> Play and learning cannot be separated … For example, games like 'ampe', the child learns to move the legs, move the legs two times, turn around are all part of learning (Teacher, Case A)
>
> Yes, there is a lot of play that involve learning. An example is giving a child some shapes and other things to play with. So the child can sort out circles, square. (Head teacher, Case B)
>
> There is a relationship between play and learning … blocks with numbers and the child puts them together according to their numbers. The child picks 1 and puts it down, looks for 2 and so on. (Parent, Case C)
>
> Learning and playing are both learning. (Parent, Case D)

With regards to the second category, play and learning are related, however, this relationship is in using play as a tool for transmitting teaching content. In other words, play is used as a way to promote children's participation in lessons. For example, when children are bored, allowing them to sing some rhymes will refresh them and get them to be focused on the lesson.

> I don't think there is no relationship between the two. Because if I want to teach numerals, I use something, which will make them happy (Teacher, Case A)
>
> They do …When they come out and play for some time, they will be refreshed for the next class (Parent, Case B)
>
> When you are teaching and the children are tired, it is ok to intersperse it with some drama so the children can relax. (Head teacher, Case D)

The last category focused on the fact that play and learning are distinct elements. This suggests that play can be separated from learning and the two should therefore be kept apart. In addition, different time slots should be allocated for play and learning.

> They are not related. They are separate elements. We have to be able to separate play from learning. (Parent, Case A)

> Play and learning are not related. They are two separate things. There is a time for playing and a time for learning. (Teacher, Case C (exception to Case C)
>
> They are not related … If you are learning, you are learning. If it is time for play it is time for play. (Parent, Case D)

7.3.6.3 Perceptions of different types of play and their importance

There were considerable similarities in terms of the different types of play identified across the cases. For all the cases, examples of play were categorised as physical, pretend and symbolic play. Two forms of physical play, exercise and fine motor play, were identified. The examples of exercise play included running, chasing, playing football and 'ampe', whereas fine motor play experiences included colouring, playing in the sand and drawing. Pretend play experiences were socio-dramatic play activities that involve role-playing. Examples included being mothers and fathers, different professions and organising a meal. Symbolic play, in the form of rhymes and songs with actions, were the most common examples. A slight difference was found in cases B and D, where another play type – games – emerged. Examples of games included electronic games and cultural games bound by rules, such as, 'ludo' and 'oware.' Figure 7.19 summarises the different types of play and examples of activities that fall under each type.

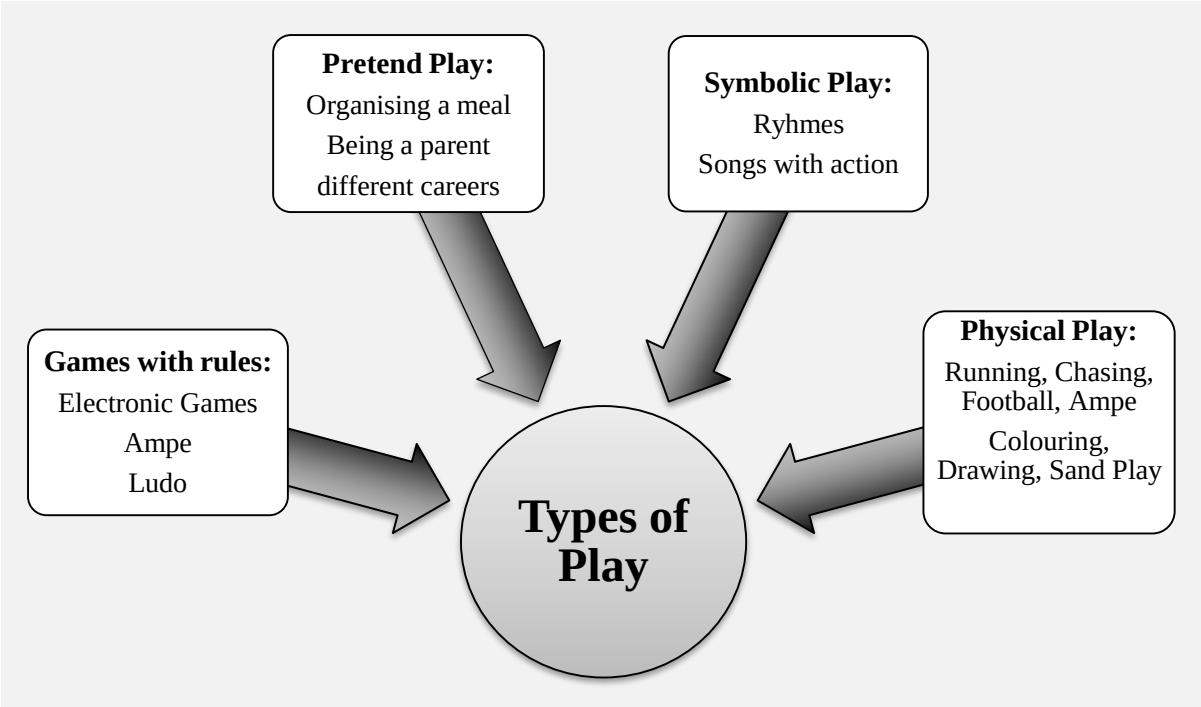


Figure 7.19. Summary of different types of play and examples of activities

When it comes to finding value in play, a general finding was that the adults in this study believe that through play children develop physically in addition to the acquisition of academic and language skills. In terms of the physical value of play, the stakeholders agreed play serves a form of exercise for children and also helps in the acquisition of fine motor skills. For academic skills, play was considered as an opportunity for children to acquire numeracy skills (counting), learning mathematical concepts (shapes) and the letters of the alphabet. Language development was expressed in terms of children being able to communicate their ideas fluently. Another value of play common to all the cases, except Case A, was the acquisition of social skills, such as tolerance, confidence and developing interest in particular careers. One significant difference among the cases was the fact that acquiring creative skills was identified only in case C. Figure 7.20 provides a summary of the stakeholders' perceived value of play, categorised into learning and other functions of play.

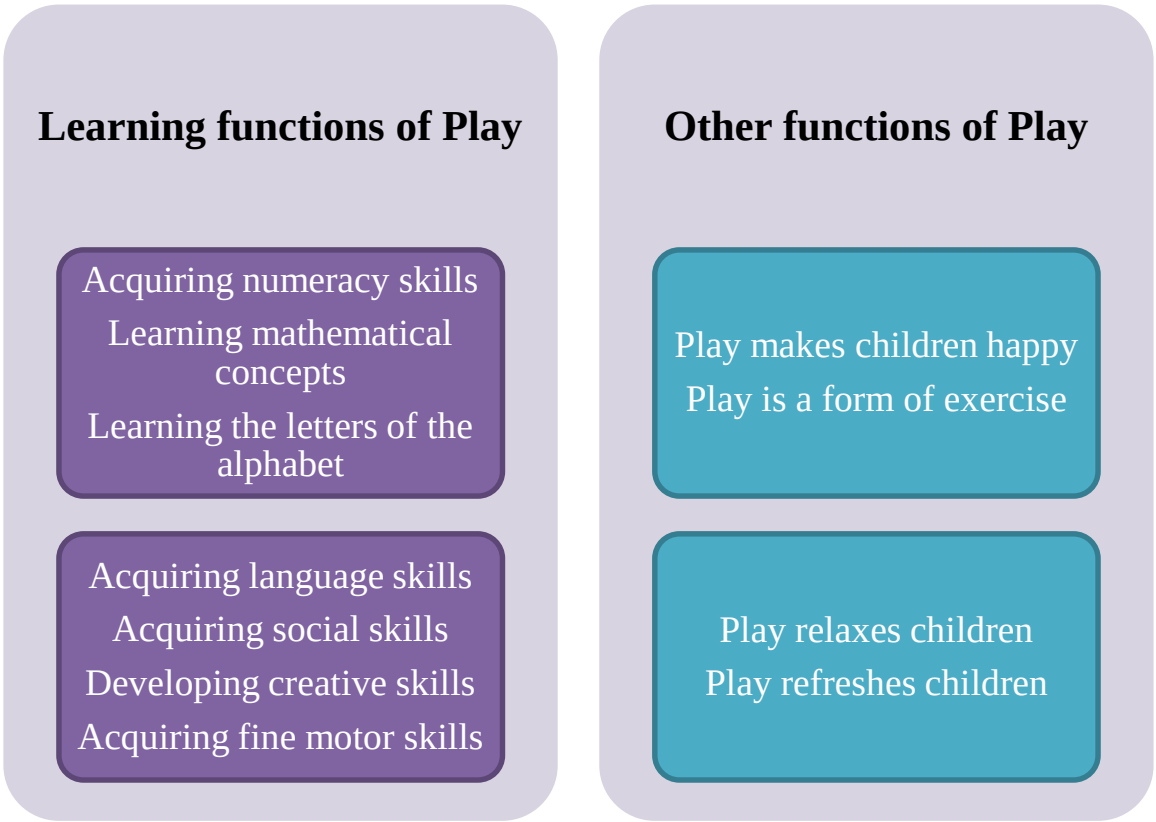


Figure 7.20. Summary of the perceived value of play

With regards to the perceived long-term value of play, acquiring social skills, which will be the foundation for children's future social relationships, was the common one. For two of the cases

(cases A and C), stakeholders suggested through play children acquire cultural skills – learning to cook and performing household chores – that are important for use in the society. Similarly, developing physically (being healthy) was recognised by two of the cases (cases C and D). However, only case B recognised that through play children acquire lasting academic and emotional skills and only Case C acknowledged that children acquire creative skills.

7.3.6.4 Adult Role

Across all the cases, the adult role identified could be summarised under two headings: providing materials for play and supporting children's play. The adult role of providing materials for play was identified in three cases (cases B, C and D). With regards to supporting children's play, different roles were identified. This involved initiating play, supervising, participating, observing and guiding children's play. The adult's participation and supervision of children's was common to all the cases. However, the role of the adult in observing and guiding children's play was unique to cases C and D.

7.3.6.5 Thinking about their practice

When it comes to thinking about their practice, there were clear similarities and differences among the cases. In two of the cases (cases A and B), the stakeholders were generally pleased with the play opportunities available for children. For case A, the stakeholders pointed out that children had the opportunity to explore the different learning centres in the classroom and also sing a lot of rhymes and songs. For case B, the stakeholders maintained that children engage in play activities when they first arrive at school in the morning and also had a special time on the school's timetable where children are allowed to go to a special room designated for play activities. Although the stakeholders of both cases were pleased with the opportunities for play, stakeholders of case A identified some constraints on their practice – pressure from parents, intrusion from community members and the lack of resources.

Sharing different perspectives about their practice, stakeholders of cases C and D were not satisfied with play opportunities available for children. The stakeholders pointed out that

children had the opportunity to play during the time for recess and sing some rhymes and songs. Recognising this dissatisfaction, they identified a number of constraints on practice. For case C, the constraints on practice were pressure from parents and school management, competition among schools and lack of opportunities for play. The constraints identified by case D stakeholders were lack of resources, limited space and intrusion from community.

One important finding is that stakeholders of both cases (cases A and D), which are both public rural classrooms in Brong Ahafo and Greater Accra, respectively, identified lack of resources and intrusion from community as limitations on their practice. This common feature underscores the fact that stakeholders perceive public settings that rely mainly on the support from the government to be under-resourced.

7.3.6.6 Observation of Classroom Practice

Nature of classrooms

The nature of the classrooms for all the cases was similar, with the exception of case B. All the classrooms had rows of tables and chairs facing a board where the teacher normally starts the lesson, but case B used tables in a circle so the children sat facing each other. However, in one of the cases (case A), there were different learning areas – such as the home, music and creative areas – designed to serve different play and learning purposes. Out of all the cases, case D had the highest number of children enrolled in a classroom, whereas case C had the least number of children enrolled in a classroom. In terms of the number of teachers in each class, each case, with the exception of case C, had more than one teacher.

Episodes of learning and teaching in the early years classroom

Although different teaching and learning episodes were observed in all the cases, there was no difference in the nature of the teaching and learning experiences. For all the cases (both nursery and kindergarten), the teaching and learning was completely teacher-directed. The concept of interest was introduced by the teacher and explained. In addition, children were asked questions and the teachers listened to their responses. Alternatively, children were asked to respond by

solving a question (particularly, mathematics) on the board. Children were not observed handling teaching and learning materials. In brief, the whole process of teaching and learning was centred on the teacher. Furthermore, recitation of rhymes and singing was a mutual thing for all the cases. For all the cases, children recited rhymes and sang before they began classes in the morning. In the course of the day, rhymes and songs were predominantly used when the children appeared tired and sleepy during class lessons. The teacher initiated all these. As a result, the children had no time and space to initiate play. Child-initiated play was a reserve of the playground, where children engaged in play with their peers, with no adult supervising them.

In spite of the teacher-directed teaching observed in each of the cases, there were few moments of playfulness captured in two cases (cases B and C), which were both private urban schools in Brong Ahafo and Greater Accra regions, respectively. For case B, the episode of playfulness – playing with objects – (Refer to Figure 7.5) was observed when it was time for children to spend some time in the 'playroom.' For case C, the episodes of playfulness were witnessed during transitional periods, when the children had finished their required class exercises or were not focused on the required activities.

7.3.7 Summary of findings using Rogoff's three lenses

In analysing the data in relation to Rogoff's three foci of analysis, I found personal, interpersonal and institutional dimensions being foreground in the early years settings. On the *personal focus* of analysis, the stakeholders believed in play as a way of making children happy and supporting lessons being taught. The stakeholders foreground rhymes and songs and believed it was important for refreshing children and keeping their attention focused on lessons as well as keeping them active. In addition, they interpret play and learning as active participation of learners using teaching and learning materials. At the *interpersonal focus* of analysis, the adult's roles of providing materials, participating in play, supervising and guiding children's play were considered to be important. However, except participating in rhymes, none of these roles were exhibited in practice. On an *institutional focus* of analysis, the children had

the opportunities to sing songs and rhymes, something stated in the curriculum. Therefore, beliefs about the importance of play for learning appeared to be framed from an instructional perspective.

7.3.8 Is the intention of curriculum on play reflected in classroom practice?

According to the curriculum, free play activities that allow children to explore by drawing, colouring and scribbling should be used to develop children's creativity. The picture that emerged from my observations is that there were no sessions of free play and so children did not freely choose any play activity, but their creative assignments were focused on drawing and colouring. Furthermore, the curriculum states that different activity centres should be incorporated in the classroom space to allow children freely make a variety of play choices and interact with their peers and teachers. Additionally, the curriculum states the use of rhymes and songs. Here the goal is to develop children's language and literacy skills. In practice, what varied among the settings is that the different activity centres were found in only one classroom. However, children did not have the opportunity to make a variety of choices and to interact with their peers as stated in the curriculum. The centres were used by the teacher to teach different topics and as a way of getting the children to see and interact with the materials. What was common among the settings is the use of rhymes and songs. In their interactions with the children, the teachers initiated the rhymes and songs.

7.4 Discussion

The generation and analysis of the qualitative data collected using interviews with stakeholders, classroom observations and documents allowed the exploration of stakeholders' perceptions of play and learning and making significant interpretations that took into consideration the sociocultural context of Ghana.

From the interview data, it was obvious the stakeholders generally considered play as a joyful activity for children. However, in discerning the role of play in the classroom, it was quickly recognized that there were basically three differing views of play held by the stakeholders. First,

play was considered a practice-oriented activity that took the form of children interacting with teaching and learning materials in an effort to sustain their interests in lessons being taught. Second, play was conceptualized as an activity that assumes the role of keeping children busy and as a reserve for recess. The third view focused on play as a significant learning opportunity for children. These three different views of play in the classroom seem to fall in line with the Gaskins, Haight and Lancy's (2007) cultural constructions of play – accepted and cultivated play. The first two conceptualizations of play – sustaining children's interests and keeping children busy – reflect play as an *accepted* activity that has little potential as an important activity. The view of play as an accepted activity was expressed by stakeholders in cases A (public rural setting in Brong Ahafo) and B (private urban setting in Brong Ahafo) as well as case D (public rural setting in Accra). The similarity in views across the three cases highlights an emphasis on children's academic achievement and success (Kabay et al., 2017). The third view of play as a mechanism for learning (case C) falls in line with play as an activity that is *cultivated*, although this cultivated belief about play, which implies the provision of abundant resources and time, did not reflect in classroom practice. The difference between the stakeholders in case C and the others suggests that individual belief system can influence beliefs about the importance of play. However, the absence of classroom activities that depict play as a cultivated activity may be due to normative beliefs rooted in the institutional and cultural system (this is discussed further in chapter 8).

While the stakeholders' conceptions of play differed across cases, their thoughts about learning were similar within and across cases, with very little exception. Generally, the conceptualization of learning was in a narrow cognitive sense, which was described as the acquisition of knowledge. This orientation suggests learning as something that happens when a teacher teaches or something that involves direct instruction. This definition often stems from the view of children as 'empty vessels' whose knowledge acquisition is dependent on an adult's direct instruction (Hirsh-Pasek, Berk, & Singer, 2009). In other words, learning occurs when an adult imparts knowledge into a child. Consequently, the stakeholders understanding of learning in

terms of direct teaching influenced their classroom practices, where teacher-led instruction was the primary means of transmitting teaching content.

In addition to the stakeholders' initial descriptions of play and learning, their views about the relationship between play and learning were sought. Both within-case and cross-case analysis revealed three distinctive views about the play-learning relationship. First, the pairing of play and learning was framed in a way that suggests play as learning. From this perspective, the idea of play is understood as children's exploration of resource-rich environments and learning conceptualized from a broader perspective that goes beyond the cognitive and focuses on the holistic development of the child (Nilsson, Ferholt, and Lecusay, 2017). Viewing play as learning resonates with Piaget and Vygotsky's theories of child development. These theorists suggest knowledge building in the early years is through experiences. These experiences occur through exploration in play (Piaget), social and cultural interactions with peers and adults during play (Vygotsky). In other words, they regarded learning not as developing through teaching (although Vygotsky recognized the role of the adult in providing assistance), but through play. However, this image of the play-learning relationship was not evident in the Ghanaian early years classrooms. There were no enriched environments for children's exploration. Learning in the classroom was focused on developing the child academically. The disparity between their stated beliefs and practice was purportedly predicated on constraining factors that overrode their abilities to include play in the classroom. The one exception to this apparent dissonance between beliefs and practice was case A (rural public school in Brong Ahafo region), where different centres for different play activities were incorporated in the classroom. Even for this case, the different learning centres provided were not in response to the child's need to experience, manipulate and construct knowledge through the environment, but were used as a window through which the child could see and touch objects as the teacher leads them to learn information deemed valuable, an approach which Nilsson, Ferholt, and Lecusay (2017) refer to as play-for-learning. Here, play is not valued for the expression of thoughts and feelings or exploration, but play is viewed as a tool for maximizing direct teaching. In other words, play is

not considered important for its inherent value but its role in helping teachers transmit teaching contents.

Second, play and learning were considered as related, however, this relationship was framed as a stress-releasing activity, which mirrored the recreational or relaxation classical theories (Lazarus, 1883; Patrick 1916) that focused on restoring energy consumed in work. Implicit in this relationship is the understanding of play as an accepted activity with very minimal potential as a learning opportunity (Gaskins, Haight and Lancy, 2007), which is therefore subordinate to formal learning. This finding corroborates the finding of a previous study conducted by Avornyo (2014) in Ghana. In that study, one early years teacher's description of play comprised activities that make children refresh their minds in preparation for serious activities (direct instruction). Through classroom observations, it was evident play in the classroom served the purpose of refreshing and keeping children relaxed for formal teaching activities. Generally, these play activities were in the form of rhymes and singing, which were initiated by the teachers when considered necessary.

The third characterization of play and learning presented a dichotomy between play and learning. This perspective is characterized by an understanding of learning as a serious activity that cannot be combined with play and emphasizes a push towards teacher-centred approaches to learning. From this point of view, children are only expected to engage in play during recess. This way, play becomes a curtailed activity (Gaskins, Haight and Lancy, 2007) that would not be entertained in the classroom. This orientation is, perhaps, embedded in the behavioural theory of child development. Behaviourism is characterized by the belief that children can learn anything given the right reinforcement and rewards. In addition, others determine what is learnt (Nolan & Raban, 2015). Therefore, the teacher decides what is to be learnt and directs the child's learning. Children learn through having their own behavior reinforced using teacher-mediated rewards, such class exercises as observed in all the case studies in the present thesis.

Although different perspectives of the play-learning relationship emerged across the cases, the stakeholders' descriptions of the different examples of play and their perceived value in children's learning were considerably similar across cases. Concerning the examples of play, they were categorized utilizing the broad types of play presented in the play literature. Although five broad types of play were discussed in section 2.2 – physical, play with objects, symbolic play, pretend/socio-dramatic play, and games with rules (Whitebread, 2012), the examples presented by the stakeholders fell under four of the types of play – physical, symbolic play, pretend play, and games with rules. Among these, the type of play most commonly cited by the stakeholders was symbolic play or language play. This could be due to the remarkable emphasis placed on language and literacy in the Ghanaian early years curriculum and the importance of creating different learning areas to facilitate language development and literacy. Specifically, symbolic play, in the form of rhymes and songs (Crystal, 1996), was repeatedly cited within and across the cases. Consistently, rhymes and songs were the dominant play activities observed in the early years classroom. This was evident before lessons were commenced and during lessons when the teachers realized the children were bored. Across all the cases, the teachers initiated rhymes and songs. The logic of this universal recognition of rhymes and songs among all the cases is as follows. In the classroom, teaching and learning is predominantly based on didactic instructions. Therefore, to keep children's attention on the topic being taught, songs and rhymes serve as a good interlude to keep the children relaxed and focused. Similar findings emerged from Chowdhary and Rivalland's (2016) study in Bangladesh. The teachers in their study cited rhyming and singing as examples of play activities that help keep children active.

The physical play activities comprised exercise, fine motor and rough and tumble play. Generally, examples of the physical play activities included those that are identified in the literature such as chasing, kicking, running, colouring and painting (Smith and Pellegrini, 2008; Whitebread, 2012) and those that pertain to the Ghanaian culture, for example 'ampe'. The examples of pretend play activities identified by the stakeholders were connected mainly to the valued skills considered important in the Ghanaian cultural settings. To illustrate, the most

common example was a child pretending to prepare a meal. This stems from the fact that being able to prepare a meal as an adult, especially for a girl (although it is increasingly becoming an important skill for boys), is an essential skill in the Ghanaian cultural practice. This is because it is believed a woman who does not have good culinary skills is less likely to make a good home. Therefore, communities value children engaging in such play activities, because this play is linked to the child's future adult role. Play therefore serves as an opportunity for developing and strengthening this future skill. The fact that play strengthens skills needed for survival is consistent with Groos' (1901) pre-exercise theory of play that highlights play as an instinctive practice behavior that enable children to practice skills needed for adult life. It further echoes Fleer's (2013) proposition that beliefs associated with play are dynamic and tied to particular cultural community practices.

With regards to the perceived value of play, within and cross case analysis revealed that the stakeholders emphasized the importance of play and its contribution to children's physical, social and language development as well as the acquisition of academic skills. Among these were the physical aspects of development in the form of acquiring fine motor skills and keeping children healthy. Social skills identified by the stakeholders were learning to take on different roles and develop interest in different careers. Language development took the form of children's ability to communicate their ideas using words. The stakeholders expressed that through play children develop academically through the acquisition of numeracy skills, understanding mathematical concepts and learning the letters of the alphabet. In addition, children's acquisition of creative skills through play was not common to all the cases, except one. The stakeholders recognized that creativity is developed by way of creating imaginary situations and assembling objects. On the whole, the role of play in relation to children's learning identified by the stakeholders was consistent with those in extant literature on play (Pellis and Pellis, 2007; Pellegrini et al., 1991; Dickinson and Moreton (1991; Nath and Szucs, 2014; Kamii, Miyakawa and Kato, 2004). However, one notable exception was the nursery teacher (Madam Bertha) whose theoretical ideas about the value of play appeared unresolved.

Her unresolved theorising of play exhibits her lack of awareness of the different utilities of play and represents a complexity of the notion of play. This somewhat reflects the quality of her background as a teacher. With a very minimum qualification (middle school leaver) and no professional training, it may seem difficult to understand the progression of learning through play, apart from songs focused on teaching sounds and words, which she acknowledged.

Extending the stakeholders beliefs about the perceived value of play, their beliefs about the influence of play on children's later development were sought. The identified perceived long-term benefits of play were similar across cases. The stakeholders suggested that early play experiences are important opportunities for children's social, physical, and academic development. This finding is supported by previous empirical works that have focused on investigating the impact of play on children's later development (Marcon, 2002; Sylva et al., 2010). Furthermore, context specific skills – learning to cook and perform household chores – were stressed as important skills that are developed through play and serve as a foundation for children's future cultural survival. The fact that the parents stressed the acquisition of these skills reiterates the point that this skill is a valued practice within the Ghanaian cultural setting. A common expression is "through play children learn how to cook." This implies that although parents would want their children, especially girls, to develop academically, they are also concerned about their cultural development because acquiring these cultural skills has economic value for the community – being able to prepare meals for one's family. This argument finds support in previous research that suggest beliefs associated with the value of play are related directly to the cultural community in which play expressions are found and its economic purpose within a community (Elkonin, 2005; Barbara Rogoff, 2011; Fleer, 2013). Elkonin's (2005) work on the historical origin of role-play provides support to this point. He examined archaeological toys and anthropological studies and noted how primeval toys such as the bow and arrow were designed for children at very young ages to learn about hunting. He argues that there was a direct relationship between the toys made by the adults (bow and arrows), the valued skills needed in the community (shooting animals) and the child's future contribution to that

community (having the skill to hunt). Thus, the development of the motor skills was related directly to practicing and using adult tools, which will contribute to the future survival of the community.

Despite the stakeholders' recognition of the role of play in children's physical, social, language and academic development, one striking finding was in relation to the role of play in children's emotional development. Research on play, for example, Galyer and Evans (2001) and Meyers and Berk (2014) suggest play is an important opportunity for children to develop emotionally (for example, express and cope with their feelings; manage their emotions; self-control). This emotional development and learning underlines much of children's future success and wellbeing. However, from the interview data it was found that only one stakeholder acknowledged the relationship between play and children's emotional development. This is probably due to the stakeholders' inability to make links between play and children's emotional development, because for most people within the Ghanaian context, learning is focused narrowly on the child's ability to excel academically, which is considered as cognitive development. Although the curriculum defined development broadly, there seems to be very little emphasis on holistic development that includes emotional development, probably due to lack of understanding of the need for emotional development. It was therefore not surprising to find that most of the stakeholders described learning in connection with knowledge acquisition, which could be categorized as cognitive development. Generally, emotional development has received very little attention in the Ghanaian cultural context, although there has been recent call for attention on training young people to properly manage their emotions[15]. For example, in assessing kindergarten school quality in Ghana, Wolf et al. (2018a) observed lower quality in measures of emotional support and behavior management. Consequently, play is unlikely to be considered an avenue for developing emotionally.

[15] https://www.myjoyonline.com/news/2017/May-29th/ghanaians-advised-to-be-emotionally-resilient.php

In addition to the perceived value of play, the stakeholders recognised the role of the adult in children's play. The importance of the adult's role in play has been emphasized by Vygotsky (1966) and also in research (Neuman and Roskos, 1992; Saracho, 2001); Cook, 2000; Han et al., 2010; Weisberg, Hirsh-Pasek and Golinkoff, 2013). Of significance was the stakeholders' elaboration of the differing roles adults have in supporting children's play. The stakeholders' perceived role in children's play was consistent with what exists in the literature. Nevertheless, there was a disparity between the expressed beliefs and practice. Notably, most of the stakeholders theorized that their role involved the provision of an enriched environment. While almost all the parents emphasised the importance of providing resources for children's play, this research did not examine play at home and could not ascertain a match between their beliefs and practice. However, apart from the case of the rural public school in Brong Ahafo, where the early years classroom had different corners along the wall in addition to tables and chairs, the remaining classroom environments were made up of tables and chairs. Resources that challenge children's engagement in different types of play were not observed in the classrooms. The absence of play resources in the classrooms points to the fact that opportunities for different types of play were not available. In other words, the classrooms do not provide children opportunities to engage in different play activities. Aside from the nonexistence of enriched classroom environments, there was a gap between the stakeholders' (teachers) expressed role of supporting children's play and practice. This gap could be attributed to the very limited different play opportunities. Perhaps, the only exception was the stakeholders' (teachers) initiation and participation in children's rhyming and singing. For all the cases, the teachers initiated children's recitation of rhymes and singing and also participated in this form of play.

Taking the different expressions of play and its role in children's learning as well as how play is represented in the curriculum, the study sought to further examine classroom practices. The classroom environments created in each of the settings were influenced by the nature of the curriculum. The curriculum framework recommends the discourse of child-centred approach and play, but a detailed examination revealed that it was practically teacher-directed that

focused on the teaching of concepts. This led to the similar physical appearances of the classrooms, which were mainly made up of tables and chairs, with the exception of one case. To reiterate, the case of the rural public school in the Brong Ahafo region (case A) had different learning areas such as music and home corners. Given the difference between case A classroom and the remaining cases, I examined what factor accounted for the difference. From the interview, it became evident that although the provision of these areas were explicitly stated in the curriculum as a way to facilitate children's language and literacy, the inclusion of these centres in the classroom was not based on the requirements of the curriculum. The change in the classroom appearance in case A was the result of a training programme organised in 2012 by MASHAV, Israel's Agency for International Development Cooperation in partnership with the Ghana Ministry of Education. The programme was organised for selected public schools in some regions and was aimed at raising the profile of early years education in Ghana.

Despite the different classroom setting for case A, the observed teaching and learning practices across cases were clearly teacher-directed activities. Indeed, these practices were not different from those predetermined in the curriculum. The curriculum framework that advocates the making of learning more child-centred and somewhat through play was interpreted as making teaching and learning more concrete. This interpretation does not deviate from the actual presentation of the curriculum – teacher-directed curriculum (Refer to Table 7.1 for examples of teacher and learner activities). In this sense, what counts as play in the classrooms are highly teacher-controlled activities that focused on teaching particular content using teaching and learning materials, for example, teaching children to identify different emotions and to differentiate among objects.

Moreover, the teacher-directed activities observed in the kindergarten classrooms were mirrored in the nursery classrooms. The similarity in classroom practices observed in both private kindergartens and nurseries classrooms points to a heavy emphasis on providing children an early start in academic achievement. As a result, there was no difference in play as used in the

nursery and kindergarten classrooms observed. To reiterate, play takes the form of rhymes and songs (symbolic play) and examples are stated in the curriculum. Although the curriculum does not cover nurseries (three years old), the observed practices suggest the nursery teachers used a truncated form of the kindergarten curriculum to guide their teaching and learning activities. What this means is that the prescriptive teaching and learning requirements for kindergarteners were applied to children in the nursery classrooms. The teaching and learning episodes for cases B and C are concrete examples of this. However, such activities do not reflect developmentally appropriate practices, which focus on a balance between child-initiated learning and adult support (Walsh, McGuinness, Sproule, & Trew, 2010).

In spite of the teacher-directed nature of classroom activities in both the nurseries and kindergartens, what was extraordinary was the children's spontaneous pretend play scenarios observed in one of the cases. The two examples observed were different in nature, but both of them are common play situations in the world of early years. In both examples, the children strived for an understanding of their own world. Both examples highlight the dual nature of pretend play (Hirsh-Pasek & Golinkoff, 2008). The first observation (children pretending to be in the market) highlights the social nature of pretend play, which becomes evident, as children grow older. The second observation (boy pretends to be rowing) underscores the fact that pretend play can be solitary in nature. The fact that both scenarios of playfulness occurred when children were supposed to be focused on the lesson and class exercises supports the idea that play is a natural phenomenon and constitutes a central aspect in children's world and that even when they seem to be deprived of opportunities for play, they still are able to find room to be playful (Huizinga, 1955; Pramling-Samuelsson and Johansson, 2006; Smith and Pellegrini, 2008). More importantly, in both situations, play and learning seem integrated. The children experienced something that goes beyond what they were asked to do – complete their class assignments. They were able to reach the point of intellectuality, where they were able to represent reality using symbols. In other words, they were able to imagine something in their surrounding world and communicated this in play. Consequently, it becomes difficult to

distinguish play and learning from both observations. In the first observation, the children explored the concept of money and its use and the situation consisted of communication and meaning making. Like the first observation, the second example of playfulness involved creativity and imagination. These learning episodes observed in the children's play suggest play and learning stimulate each other and could be considered as inseparable.

7.5 Summary

In this chapter, the findings from the data collected from four early years settings are presented and discussed. An analysis of the curriculum showed that play is narrowly represented, with it being explicitly referenced with two areas of learning – creativity, language and literacy. Also, the highly prescriptive nature of the curriculum makes it difficult for play to be the central learning pathway. From this premise, play represents teachers' use of teaching and learning materials to get children actively engaged. Generally, the stakeholders acknowledged the importance of play in children's learning lives. However, the way in which this relationship is defined is an important issue. The majority of the stakeholders interpreted play as a break from learning, making reference to recess and the use of rhymes and songs to release children from boredom and make them active. A few of the stakeholders did recognise possible connections between play and learning, referencing play as a valuable learning experience in itself. With only one exception, all the early years classrooms observed were very similar in terms of their physical setting – mainly filled with tables and chairs facing a board. Also, the settings did not differ with regards to teaching and learning activities. The teachers taught the lessons and rhymes as well as songs were the main form of play observed in the classrooms.

CHAPTER EIGHT

GENERAL DISCUSSION

The overall purpose of this study was to examine the role and meaning of play in Ghanaian early years settings. To achieve this aim, the study was designed to address three specific objectives: (1) evaluate literature on the role of play in learning, research on stakeholders' beliefs of play and its role in children's learning (2) develop a theoretical framework that will serve as the backdrop for the study (3) examine play and learning in Ghanaian early years classrooms with respect to stakeholders' (parents, teachers, head teachers) beliefs, classroom practices and the expression of play in the curriculum.

To address the first objective, an evaluation of existing literature on play was carried. This evaluation shows that play has been a subject of long history. As a result, two different theoretical groups have been espoused to explain why children play and the role of play in children's learning. The first group of theories, referred to as classical theories, have narrowly explained the purpose of play in children's development, emphasising the stress-releasing nature of play, the relaxing role of play and the development of cultural skills needed for survival (Schiller, 1875; Spencer, 1890; Lazarus, 1883; Patrick, 1916; Groos, 1898). The second group of theories, referred to as modern theories, have attributed children's ability to develop and learn through play, emphasising its importance for their cognitive, social, and emotional development as well as language development (Piaget, 1952; Vygotsky, 1966; Sutton-Smith, 1967; Bruner, 1972). Simply put, these theories have highlighted the importance of play in children's holistic development. Taken together, both the classical and modern theories indicate that play serves multiple functions in children's lives.

Another aspect of the literature on play has focused on the categorisation of children's play. Play has been categorised in varied ways, and the some of the categories tend to overlap. Within the context of this study, five different types of play were reviewed: physical, object, symbolic, pretend play and games with rules. A great deal of research evaluated suggests some evidence

for the importance of play. While most of these studies are correlational, they suggest that the different types of play provide opportunities for children to develop physically, socially, emotionally, and cognitively as well as acquire language and academic skills. Perhaps, the lack of very strong causal evidence to support the role of play in children's learning has led to varied beliefs about its importance in children's lives and education. Three inferences emerged from the review of research on stakeholders' play beliefs. First, the utility of play in children's lives is considered differently across different social and cultural contexts, with stakeholders in some contexts ascribing greater learning significance to play (Parmar, Harkness and Super, 2004; Wu and Rao, 2011), whilst stakeholders in other contexts ascribed less significance to the role of play in children's learning (Fung and Cheng, 2012; Chowdhary and Rivalland, 2012). Second, level of education seems to be a factor in explaining the differences among stakeholders' beliefs about play. Although existing studies have been focused on parents, the conclusion is that parents with higher education status (for example, high school education and above) express more positive beliefs about play as an opportunity for learning compared to those with lower education status (for example, below high school education) (Manz and Bracaliello, 2016; LaForett and Mendez, 2016). The third point is that although some stakeholders, particularly teachers, perceive play positively; their activities are constrained by lack of resources, such as materials, time and space, and curricular expectations (Avornyo, 2014; Fesseha and Pyle, 2016; Chowdhary and Rivalland, 2016).

The varied perceptions of the role of play across different contexts seems to influence the provisions made for play in early years education. In other words, the role of play in children's development and education as well as the resources made available is dependent upon beliefs about the value of play and differs from one context to the other. Within this premise, the socio-cultural theory of play was adopted as the theoretical background within which the study of play in Ghanaian early years classroom was framed. The basic proposition of this theoretical orientation is that regardless of contexts, play is a natural activity for children (Frost, 2012); however, its recognized significance in children's lives is dependent upon the valued practices

of a particular community (Fleer, 2013; Gaskins, 2014). Framing the study socio-culturally gave room for understanding individual beliefs of stakeholders and how these might be influenced by valued practices rooted in the Ghanaian sociocultural context. This framework called for a wide-ranging research methodology that helped to understand play beliefs at both the individual and cultural levels. Thus, a mixed methods study was employed, involving both the collection of quantitative and qualitative data.

The quantitative data was collected using the Early Years Play and Learning Perception Scale (EYPLPS). The EYPLPS was developed to improve upon existing survey scales used to assess beliefs about the importance of play in children's developme learning by providing a general measure of play beliefs that can be applied to wide range of participants. Following a series of scale development procedure (Clark and Watson, 1995), a preliminary, 25-item scale was developed. Items in the scale included statements that reflect play as a valuable mechanism for learning as well as items that reflect play as not a crucial element in children's learning. Six experts in the field of child development and play reviewed the items to ensure the content validity of the scale. A field test was conducted, followed by a combined scaling analysis, involving factor analysis and graded response modelling (an item response theory model). The graded response modelling revealed that the EYPLPS represented a considerable variation of discrimination, ranging from 0.16 to 2.54. Further, the item difficulty spread was within a restricted range of difficulty, with most of the items clustering around the negative range of the play-learning spectrum. These results suggest that in its current form the EYPLPS is most useful at discriminating among individuals who believe play has less relevance for children's learning. A 16-item scale was obtained for the final version, which was used in the gathering of data for the quantitative phase of the study. It was rated on a 4-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree) and also included a demographic section. Internal consistency (alpha reliability) of the 16-item scale from the pilot study was .85, which was high.

The 16-item scale was used to collect data from a total of 292 stakeholders. A re-examination of the reliability of the scale was .90, which was high. An initial analysis of the frequency distribution of participants' responses revealed that the stakeholders tended to positively favour play as a learning mechanism. However, group analysis revealed that the stakeholders varied in their beliefs about the role of play in children's learning. Between-group variability in play beliefs was minimally noted in the findings of this study. Generally, it was found that parents were less likely to perceive play as important for children's learning compared to teachers and head teachers.

Further analysis showed that other stakeholder characteristic might intersect with stakeholders' play beliefs. Stakeholders who reported higher levels of education endorsed statements that depict play as an opportunity for learning and acquiring cognitive and social skills as well as academic skills. The study confirms that highly educated parents in Ghana endorse beliefs regarding the importance of play in children's learning (Fogle and Mendez, 2006; Manz and Bracaliello, 2016; LaForett and Mendez, 2016). Although this finding is statistically true, it is difficult to explain what about their education status is influencing their endorsement of play as a way of learning. The question that emerges is why highly educated parents endorse play as a learning opportunity. Although this question was not addressed in this study, a possible explanation points to interplay between parental education and parental goals for early years education. Research suggests that parental goals for early years education are influenced by parent's education status, with high-educated parents preferring child-centred approaches that emphasize play and less educated parents preferring didactic teaching approaches that do not emphasize play (Miller 1989; Stipek, Milburn, Clements, & Daniels, 1992). Further study will be required to examine whether variations in parental beliefs about play is an indication of parents' notion of preparing children for school. The study also adds to the literature by establishing that highly educated teachers and head teachers in Ghana endorse play as important for children's learning, thereby extending our understanding of how other stakeholders' beliefs about play, apart from parents' beliefs, differ by their level of education. This finding is worthy

of attention in future studies to determine if this result is stable overtime and consistent in other contexts.

The parent sample constituted the largest group with the lowest level of education, and their EYPLPS scores indicated they did not favour play as a way of learning. This perception of a large stakeholder group stands in opposition to the Ghana Education Service's (GES) promotion of a play-centred approach in early education. This insight is an important issue for the GES and can inform its development of programmes to address parental unfavourable opinions about play. Also, moderate-educated teachers (mainly in private schools) showed similar EYPLPS scores compared to low-educated parents, while highly educated teachers showed different EYPLPS scores. This discrepancy in play-learning beliefs between groups of teachers implies that the GES push for a play-based learning might be rolled out differentially across the public and private sectors. The GES may therefore need to intensify the awareness and importance of training early years teachers across both the public and private sectors.

On the whole, the quantitative phase of the study provided an overview of stakeholders' perceptions of the role of play in children's learning. However, it could not provide insights into aspects of play and its implementation in early years classrooms as well as provide the basis for extending the unit of analysis beyond the individual to examine how individual beliefs are influenced and shaped by cultural and institutional practices. Thus, four cases were selected for the qualitative phase of the study. The qualitative data was generated through interviews, observation of classroom practices and use of photographs of classroom scenes and analysis of the curriculum. Data from the interview revealed that the participants held varied beliefs about play. Taken together, the participants shared a common belief that play is important. However, the importance attached to play differed in relation to its significance in children's learning. For some of the stakeholders, the importance of play lies in its ability to help children relax in order for them to be taught. Some of the stakeholders viewed play as a way children engage with teaching and learning materials. Also, some of the stakeholders shared the opinion that play is

important for children's learning. In their expressions lies the idea that play is a good opportunity for children to learn. Similar findings emerged in a study conducted by Abdulai (2014) in Ghana, although the study was with only early years teachers. The study found that the teachers conceptualized play as an interest-arousing activity through the use of materials, a method of teaching and a means of developing the whole child. In another study with parents in Ghana, Kabay et al. (2017) found that parents held critical beliefs about play in early years education. They interpreted play as a break from learning and expressed support for outdoor play where children can refresh themselves during recess. This present study therefore fits with existing Ghanaian research in way of obtaining similar findings, but extends these research by including head teachers as well as observation of classroom practices and analysis of the curriculum to better capture the nature of early years children's learning through play.

Among the stakeholders, there seems to be a vague understanding of the meaning of play and learning and how these two are related. Play is perceived as a natural indulgence for the child, while learning is perceived as a deliberate acquisition of something new. Interestingly, research shows that most learning occurs at the early years of lives (Jensen, 2000; UNESCO, 2006). Yet in the minds of most of the stakeholders, such dramatic changes at the early years are referred to as development and not learning. Perhaps, the inability to recognize developmental changes that happen through play as learning makes it difficult to see how play and learning are related. By so doing, learning is viewed as a contradiction to play. Even for those stakeholders who regarded play and learning as inseparable, this enactment was very superficial in which play is divorced from learning.

While this vague belief about the role of play in learning may be influenced by individual belief system, normative beliefs founded in institutional and cultural systems may also influence play-learning beliefs. The current study finds that the Ghanaian curriculum, which is nationally endorsed and sets out what must be done, does not offer a cosmetic overview for practice in early years education, but is powerful in influencing the way play is conceptualized and

actualized. It was noticed that the institutional dimension of play positioned how play was talked about, how children were supported and how play was enacted in the classroom. For instance, examples of rhymes and singing activities were elaborated in the curriculum and the teachers and head teachers predominantly cited rhyming and singing as examples of play. In practice, the teachers' observed role was basically initiating the rhyme or song. From this, we see how the institutional features of Ghanaian early years education system are manifested in the beliefs of teachers and head teachers as well as in the lives of early years children. What is surprising is the absence of the different learning centres in the classrooms, even though the curriculum specifies this for language development. Interestingly, the curriculum's emphasis on language learning through play, the item response theory (IRT) results that suggest that a stakeholder with an average play-learning belief has a very high probability of endorsing play as important for learning language skills coupled with the high stakeholders' survey responses (frequency analysis) to play as a platform for language skills acquisition and the similarities among the stakeholders' interview responses across cases with regards to the important relationship between play and language skills acquisition are clear indications that acquiring language skills through play is important for Ghanaian early years stakeholders. This implies that, at least, the curriculum's emphasis on different centres to facilitate language development through play should be taken into practice. Is it that the stakeholders (teachers and head teachers) are unaware or they hold a taking-things-for-granted perspective? Alternatively, is it that the implementation of this aspect of the curriculum meets resistance in the ground realities such as the scarcity of resources and space?

From the study, it was found that most of the stakeholders (teachers and head teachers) had a shallow knowledge of the curriculum requirements because they relied heavily on textbooks that have been written to reflect concepts in the curriculum. Although some of the stakeholders in cases A and D (rural public setting in Brong Ahafo and Greater Accra, respectively) expressed concerns about the lack of resources, which could explain the absence of the learning areas in the classroom, the stakeholders in case A (rural public setting in Brong Ahafo) implemented

this, although this restructuring was the result of a professional development programme. Moreover, the stakeholders in the private settings did not express concern regarding the lack of resources, but also had no learning centres in their classroom. The question that remains is why a patchy use of the early years curriculum. This finding echoes the GES concern that the curriculum even at its current state is not being implemented (GES, 2012).

The institutional representation of play as a teaching act could be situated within the broader Ghanaian social and cultural context regarding childhood and the view of play. This reflects the sociocultural perspective of play, which originates from the proposition that play is a culturally constructed activity (Fleer, 2013), and recognises the fact that societal and cultural values regarding play could either serve as a barrier or stronghold to creating play opportunities for children. Furthermore, it recognises that the importance attached to play is hinged on how a particular culture conceptualises childhood and its philosophy of play Göncü, Jain, & Tuermer (2007). With regards to the views of childhood, for example, in most Western cultures, the child is viewed as an "autonomous, independent, self-reliant, assertive, risk-taking, verbally expressive, confident and comfortable decision-maker when confronted with multiple choices" (Gupta, 2013, p. 224). This image of childhood impacts how children are educated and guided. Therefore, within such cultures, the idea of educating a child to be free and an autonomous person is based on child-centred approaches that respect and attempt to arouse children's interest using open-ended play environments. For example, a study by Wu (2009) shows that most German early years settings assign more than half of their school's programme time to free play allowing children to be in control of their learning with very little intervention and instruction from adults. In addition, German teachers identify play with learning and believe it is the best way for children to develop in a holistic manner (Wu and Rao, 2011).

On the contrary, non-Western cultural views of children differ completely from Western cultural views of children. For example, children in the Yucatec Maya of Mexico are viewed as 'miniature adults' who have key role in the economic unit of the family (Gaskins, 2003). As a

result, their parents find it important to teach them how to work in order to contribute to the family. This cultural view of children and how they are to develop is similar to the Ghanaian context. Although a thorough search of literature revealed a dearth of research focused on the concept of childhood in Ghana, I draw on my own personal insights as a member of the Ghanaian cultural context and my experiences as a teacher. First and foremost, the Ghanaian culture perceives children as biologically vulnerable beings who need protection and nurturing as well as help and direction (Boakye-Boaten, 2010). This deep-rooted view of the child's vulnerable nature implies the child is to develop through training (Boakye-Boaten, 2010). The term 'training' as understood is in line with the notion of 'teaching.' This notion of teaching simply means telling a child what and how to understand things around them. Consequently, this cultural view of children and how they are to develop has been translated into the national educational philosophies and systems of education. Education and learning are often associated with the child taking a passive role and the teacher assuming a directive role. Children are less likely to be encouraged to take risks that often emerge in play, as reflected by the popular Ghanaian saying: "a child breaks the shell of a snail and not that of the tortoise", which means a child should not attempt something beyond his capability or a child should not be overambitious. This image does not create room for children's experience and play. It is therefore common to find that teacher-directed approaches to learning dominate school activities, as observed in all the cases. If children are allowed to play, the teachers are likely to be perceived by the Ghanaian community as negligent and wasting the children's lives because the classroom is considered a place for serious academic activities and not for play.

Under such cultural influences, parents tend to demand evidence of their children's learning and support teacher-directed activities (Wolf et al., 2018b), because their children's future lives are dependent on their academic achievement and not play, as exemplified by one of the parents, "If he is allowed to play his future will be in trouble …" They believe the best way children learn is to 'remain quiet and still' because 'a child does not know anything', creating no room for children's creative ideas. To illustrate, my observation as a teacher revealed that parents, whose

children loved to engage in creative activities such as drawing and painting, commented that they did not want their children to spend time on such activities but to focus on aspects such as reading, writing and numeracy taught by teachers they considered important for achieving a higher rank in class.

Just as the Ghanaian cultural view of childhood and how they develop is different from Western views, so are the concepts play and learning. The cultural meanings of play and learning suggest the two cannot work in tandem, connoting a dichotomy between them. On the one hand, the term "play" referred to as '*agoro'* in the Akan dialect (one of the most common Ghanaian dialect) is interpreted as an *activity for amusement especially among young children or something that lacks seriousness*. This cultural construction of play invokes the notion of play being an unimportant activity children do for fun or something adults allow children to do as a way to keep them occupied. Indeed, play has traditionally been viewed as children's way of acting happily in their surrounding world, which is in keeping with the view put forward by Gaskins et al. (2007) in conceptualising play as a culturally accepted activity. No wonder when the stakeholders were asked about their first impressions of play, majority of them claimed, "play is about fun and happiness." On the other hand, the term learning referred to as *'adesua'* in the same Akan dialect literally means, "getting to know something" and has been valued as a serious activity affiliated to the area of school. The affiliation of learning in the school context has been related to teaching, which is how children are to be developed. From this premise, learning is considered to take place in specialised moments and activities organised and led by the teacher.

Furthermore, in the perceptions of most Ghanaians, the predominant purpose of schooling is to help children learn – acquire knowledge. In their views, the child is considered to have learnt when he or she comprehends and reproduces concepts taught by the teacher. Therefore, children need to be exposed to educational activities where they are taught in formal ways, are assigned class exercises and spend more time at home on homework. Parents' preference for exercises

and homework resonates with Kabay et al.'s (2017) study. The parents considered these as important ways of knowing what their children are experiencing in school. As a result, schools and stakeholders are mainly concerned about the scores children accrue and their rankings in class, as observed in Case D (refer to Figures 7.17 and 7.18). Therefore, play is accepted and considered a reserve for recess or controlled and allowed at a restricted period of time in the week (in case B where children had about 45 minutes a week to play in a room designated for play). This controlled form of play is what Gaskins, Haight and Lancy (2007) referred to as curtailed play, where play occurs as a secondary activity as expressed in the Mexican culture where adults tolerate minimal amount of play because of its limited value and ensure children contribute to activities regarded as important – household chores (Gaskins, 2003). This curtailed view of play was highlighted when one of the parents explained, "If the school is about playing then I can keep my child home to play. The child is brought to school to learn."

Could the cultural interpretation of play and learning be a question of language? Language matters. The cultural conveyance of what play and learning stand for and mean are important. Language has a key role in the understanding and interpretation of play in children's learning. The descriptions of play as 'something unserious' and learning equated to teaching have undoubtedly influenced adults' response to the triviality of play in education and the lack of trust in children's learning through play. Even those stakeholders who supposedly have much knowledge on play, as a result of their education, seem not to capture much better the essence of children's play. With very patchy explanations emerging from stakeholders coupled with highly teacher-centred classroom practices, the role and meaning of play in Ghanaian early years settings is one that is *accepted* as a break from learning (See Figure 8.1). Perhaps, it is time to rethink the choice and use of the word 'play' and to rehabilitate the concept of play.

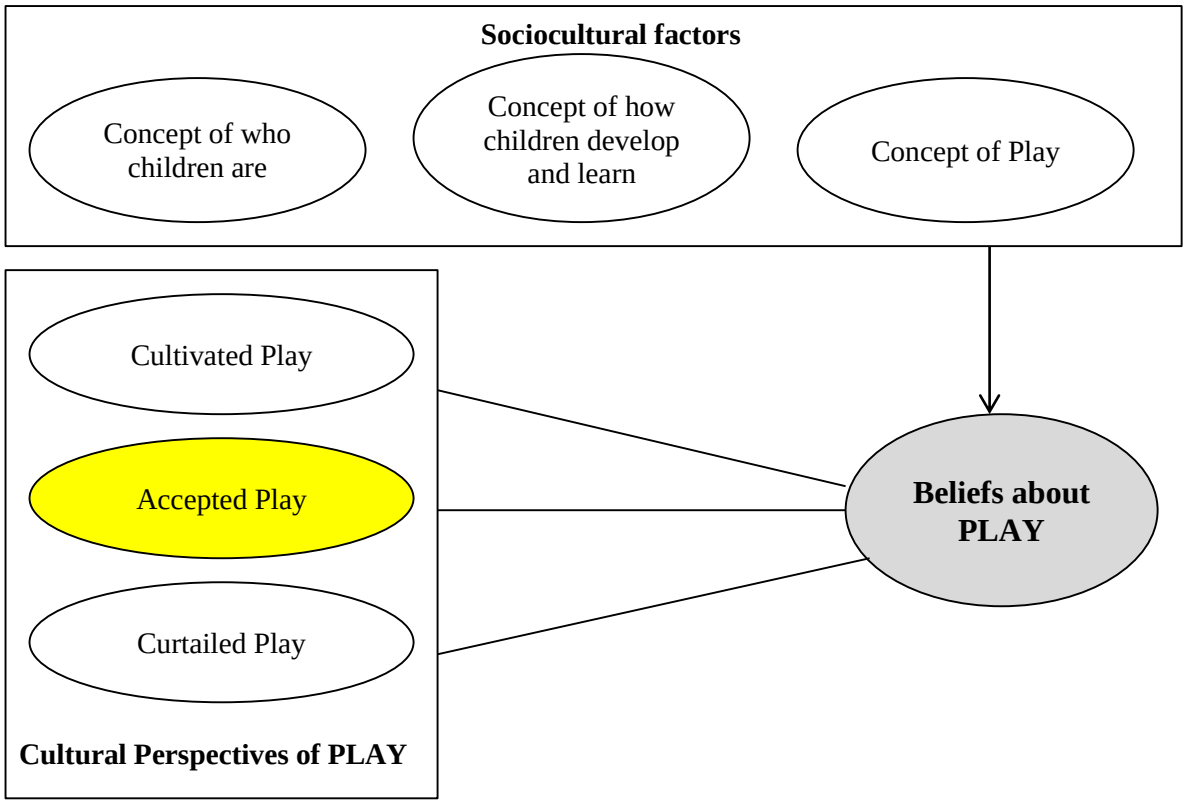


Figure 8.1. Play as an accepted activity in Ghanaian early years settings

Despite play being accepted, there were some positive views of the role of play and examples of some Ghanaian play activities (‘ampe’ and ‘oware’) that were considered important in children’s learning. Among the stakeholders, these positive responses were similar. What therefore accounts for the similarity in responses? From the interview data, it was apparent that there was a range of educational experiences and qualification amongst the stakeholders. It became evident that the stakeholders who were exposed to educational programmes that emphasise play as a form of learning for early years children appeared to have more positive beliefs about play and learning compared to those who had not acquired such knowledge. For example, some of the stakeholders, such as Esi (parent who worked as a teacher), Principal Martin (head teacher pursuing a masters in education) and Madam Martha (teacher with a degree in education), expressed strong positive relationship between play and learning compared to Madam Bertha (an unqualified teacher with a middle school certificate) and Yaa (mother with primary education) who may not have been privy to any information about the importance of

play in children's learning. This finding gives support to the cluster analysis results, which indicated that stakeholders with higher education had positive beliefs about the role of play in children's learning.

Notwithstanding, there still appears to be a caveat to education being a key ingredient. A person's education and awareness of play and its role in children's learning might not necessarily be translated into positive beliefs about play as a context of learning. A classic example is Madam Anna, a nursery teacher who had received training in Montessori education. Although her Montessori programme might have exposed her to the significance of play for children, she believed play is mere play and not to be done in the classroom. This draws attention to the fact that even though efforts are being made to ensure early years teachers are qualified, it is important for policy makers to develop and establish systems that ensure theoretical knowledge are translated into classroom practice.

While education is important, it seems parental goal for child development can influence belief about play. For one parent (Adwoa), who had only received primary education, play and learning are the same elements. Her belief is borne out of her consideration of the early years as an important stage that children acquire not only academic skills but also skills that are valued by the society as a whole. Such a finding provides unique insight into the cultural dynamics of parental goal for education – academics and sociocultural skills. These expectations have implications for the perceived pathway through which children can learn, as described by the parent – teaching and learning through play. As the GES pushes for play, programmes and policies may need to directly address these.

8.2 Summary

This chapter presents an overall discussion of the study. It highlights the research objectives of the study, paying particular attention to the findings of the quantitative and qualitative data collected. The discussion is situated within the broader context of the Ghanaian cultural conceptions of childhood, play and learning. The study confirms that the recognition,

interpretation and incorporation of play in early years education is subject to sociocultural realities. It demonstrates the usefulness of the sociocultural theory in understanding what play means and its implementation in the Ghanaian context. Interpretations and the use of play in early years education in Ghana reflect what parents, teachers and head teachers think play is and should be. In almost all the classrooms, play is the use of rhymes and songs as well as teaching and learning materials to accelerate children's academic learning. Taken together, this research fits with Gaskins, Haight and Lancy's (2007) cultural proposition of play. In the early years classes studied, play is accepted. The acceptance of play lies in the fact that it is recognised as a natural activity for children, however, limited amounts are allowed in the classroom, which is considered a place for serious academic activities. Certainly, for young children in these classrooms, play is seen as a right but it is only tolerated and not encouraged. The study further extends our understanding of the cultural dimensions of play by identifying play activities that are specific to the Ghanaian context such as 'ampe' and 'oware'. The commonality of these examples among participants draws attention to the culturally specific element and relevance of play (Rogoff, 2003). These forms of play constitute a representation of the Ghanaian traditional games and children's engagement in these activities could be seen as a way of acquiring indigenous knowledge.

CHAPTER NINE

CONCLUSION

This chapter concludes the thesis with a summary of the findings and its implications, quality of the study, limitations and recommendations for future research, as described below.

9.1 Synthesis of the findings

Several insights emerged from a synthesis of the study's quantitative and qualitative findings, according to the six research questions:

- Parents are less likely to favour play as a way of learning in the early years classroom compared to teachers and head teachers. This claim is supported by both the quantitative and qualitative findings. Generally, the quantitative results (ANOVA) showed that parents had lower scores on the scale compared to teachers and head teachers, although cluster analysis distinguished low-educated parents as having lower scores on the scale compared to high-educated parents. Similarly, findings from the qualitative data revealed that parents were more likely to consider play as having a less important role in children's learning in the classroom than teachers and head teachers.
- The Ghanaian early years curriculum does not emphasise a play-based learning, but rather gives the suggestion that children learn by doing and therefore activities that involve children's participation should be used to ensure an effective teaching and learning.
- Majority of the stakeholders perceived play as fun and makes children happy. In addition to fun and happiness, play was perceived as a way of keeping children's interest in lessons, keeping them busy and as a recess activity. Furthermore, some stakeholders perceived play as an environment for learning. Generally, learning was defined in relation to knowledge acquisition. Although this description of learning suggests a narrow recognition of the relationship between play and learning, the play-learning

relationship was viewed in three different ways: as distinct elements, a tool for transmitting teaching content and as integrated elements.

- The stakeholders identified four different types of play, which include physical, pretend, symbolic play and games with rules. Physical play, such as running, football, jumping and 'ampe' were viewed as important for keeping children healthy and active. Pretend play, for example, pretending to cook, was perceived as a way of acquiring important cultural and social skills. Symbolic play, in the form of rhymes and songs, was perceived as important in helping release children from boredom during lessons and also helps in language development. Games with rules, such as 'ludo' and 'oware', were perceived as important in children's development of cognitive skills.
- Almost all the stakeholders recognised their significant role in children's play. Generally, parents and head teachers spoke about their role in providing materials for play at home and school, respectively. Also parents spoke about participating in their children's play when they are free. The teachers saw their role in play as providing materials, supporting, supervising and guiding children's play as well as participating in children's play.
- The stakeholders unanimously believed the use of rhymes and songs is an important form of play. Rhymes and songs were the main type of play observed in practice. These were used at the beginning of lessons and also as an interlude when children appeared tired and bored during lessons. The recognition of the use of rhymes and songs in children's learning was a consistent feature of play in this study. The striking consistency between the stakeholders' beliefs (particularly teachers) and practice is a reflection of the curriculum. The curriculum puts forward a number of rhymes and songs that could be drawn upon in facilitating teaching and learning in the classroom.
- Teachers who believed play is a medium of learning did not translate this into practice. The gap between their beliefs and practice was attributed to barriers such as lack of

resources, space, pressure to conform to educational norms, pressure to meet parental expectations and competition among schools, particularly in the private sector.

- Despite the highly structured nature of classrooms and lessons, some moments of playfulness among children were observed in some classrooms. Although these were brief periods of play initiated by the children, it supports the idea that play is a natural part of children's lives. In the play scenarios, the children reached a state of intellectuality, imagination and creativity, highlighting the fact that learning can be embedded in play.

In summary, the quantitative and qualitative findings present an interesting picture of the role and meaning of play Ghanaian early years settings. These findings highlight the unique nature of play in both nurseries and kindergartens. The purpose of play was strongly aligned to helping refresh and in keeping children active and alert during teacher-directed classroom instructions. Play was also a way of making teaching concrete using teaching and learning materials. These roles and meaning of play in the classroom reflect a lack of understanding regarding the complexity of play and learning. Specifically, teacher and head teacher interviews indicated little understanding of the theory and pedagogy of play. For example, this comment from a head teacher illustrates superficial information: "Play is story telling whereby there are songs. It can be a circle play whereby they hold their hands and dance." Equally, parents are unaware of the depth and understanding of the relationship between play and learning for development, as evidenced by this quote: "Play is home matters and school is for learning. If he plays his ability to become knowledgeable decreases." In the broader context, the Ghanaian cultural understanding of the words "play" and "learning" impacts the meaning attributed to play and its role in learning. Play is a fun activity, whilst learning is related to teaching, earning high scores and grades. This drive for achieving high scores and grades in class impacts how adults frame play and its role in children's learning.

9.2 Implications

The findings from this study show that the parent sample constituted the largest group with the lowest level of education, and their EYPLPS scores and interviews indicated they did not favour play as a way of learning. This perception of a large stakeholder group stands in opposition to the Ghana Education Service's (GES) promotion of a play-centred approach in early education. This insight can inform GES development of programmes to address parental unfavourable opinions about play. Also, moderate-educated teachers (mainly in private schools) showed similar EYPLPS scores compared to low-educated parents, while highly educated teachers showed different EYPLPS scores. This discrepancy in play-learning beliefs between groups of teachers implies that the GES push for a play-based learning might be rolled out differentially across the public and private sectors. While this is true from the results of the survey, interviews with teachers across both public and private settings provided insights that indicate both public and private teachers' belief of play as 'break from learning. The GES may therefore need to intensify the awareness and importance of training early years teachers across both the public and private sectors.

This study found evidence for didactic teaching activities in the classrooms, which contrasts the GES policy of supporting a play-based learning. With some parents being critical of the use of play and some teachers not supporting the idea of learning through play, it would be important for the GES to carry out research that provides evidence to support the role of play and offer a strong basis for their push for play-based learning. By so doing, they can help address the enduring cultural liking of rote repetition as the best way of learning in the early years and shift beliefs about play as less important to one that recognises play as valuable in itself.

The findings from this study show that the curriculum is one of the reasons for the culturally accepted representation of play in the classrooms. When viewed in this manner, it becomes clear that for those stakeholders who recognise the significance of play in children's learning, the curriculum could become a hindrance. Its highly prescriptive nature, which describes what is to

be taught and how it should be taught, offers no room for playful experiences. If play is to be cultivated, as reflected in the views of some stakeholders, then it would probably start from a revision of the curriculum to reflect trends that offer the room to support the progress of children in a less prescriptive manner. This study therefore questions the need for rethinking the nature of the early years curriculum. The Ghana Education Service (GES) may need to address this since there appears to be a discrepancy between their commitment to play espoused in their education report and the nature of curriculum.

Stakeholders' concerns about barriers to learning through play need to be addressed. As the GES pushes for play-based learning, it is important the necessary resources and training are available to ensure a smooth implementation of play in the classroom. Efforts need to be made to reduce classroom congestions, provide materials and prevent intrusion from community members.

9.3 Quality of the Study

Quality is an important issue in both the quantitative and qualitative research process. However, the very act of mixing quantitative and qualitative approaches raises potential issues about quality because of the increased complexity arising from the need for a common quality criteria label for assessing mixed methods research. Recognising the issue, Tashakkori and Teddlie (2003) have suggested that mixed methods researchers should adopt a common terminology that transcends quantitative and qualitative research. Consistent with this, Tashakkori and Teddlie (2003) have recommended that 'inference quality' be used as the mixed methods research term for validity. They defined it as the accuracy with which researchers draw inductive and deductive conclusions from a study. In other words, it is the ability of the researcher to make meaningful conclusions from all the data in the study (Creswell and Clark, 2007). Tashakkori and Teddlie (2003) further conceptualised inference quality as being associated with two research components: design quality and interpretive quality. The former refers to standards

used for the evaluation of methodological rigour in mixed research, whereas the latter refers to standards for evaluating the validity of conclusions.

With respect to the design quality, the design adopted was the explanatory sequential design, which involved the collection of qualitative data following the collection of quantitative data. This design was appropriate for addressing the overall research question of examining and understanding the role and meaning of play in Ghanaian early years classrooms. Each of the method was suitable for addressing its questions. The methods fit together as they address separate but interrelated questions. Furthermore, potential threats to data collection (for example, validity of instrument and sample selection) embedded in this design were minimised. First, the survey instrument was validated leading to a more accurate and meaningful survey data that guided the subsequent selection of cases. Moreover, the embedded unit of analysis for the case study research comprised the same individuals who took part in the quantitative phase.

With regards to the interpretive quality, the separate reporting of the quantitative and qualitative component of the study made it obvious which findings were related to which methods. Inferences were consistent with the findings on which they were based. For the survey, the inference was that the stakeholders differed in their beliefs about the role of play in children's learning, and the finding showed that stakeholders with higher education status were more likely to perceive play as a way of learning; for the case study, the inference was that the early years curriculum does not offer play-based learning and play was mainly framed by stakeholders as a fun activity and a way of sustaining children's interest in teaching activities. This belief was consistent with teachers' practice, where children were mostly engaged in rhymes and songs to make them happy and active. A very interesting item for this study was theoretical consistency because the inference from the qualitative component was consistent with current knowledge of framing play as a culturally constructed activity. However, transferability or generalizability from the study cannot be considered due to the fact that data was collected from two out of the

ten regions in Ghana, although the 40 schools involved in the quantitative data collection had classroom settings similar to the four cases studied in depth.

9.4 Limitations and further research

This study represents a unique contribution to the literature on culturally diverse play beliefs among parents, teachers and head teachers. Nevertheless, it is only a small step towards understanding how Ghanaian stakeholders perceive the significance of play and learning for early years children. It has certain obvious limitations that call for a prospectively designed replicated study. First, although attempts were made to maintain a rigorous development of the EYPLPS, some limitations exist. The sample size used for the scale development was not large. It is therefore possible that the IRT parameter estimates may not have been accurately estimated, given the large standard errors associated with them. Also, the sample used for the IRT calibrations was from a diverse group of participants (parents, teachers and head teachers). This implies that there were no significant differences among the participant characteristics or responses. Therefore, using a combined sample for the IRT calibrations could have resulted in inaccurate estimation. Another limitation is that the scale was validated using an expert review process. This process validated the content of the scale, reflecting face validity. However, the construct validity of the scale was not assessed beyond seeking expert views. Further work with this scale should be conducted to address these limitations and to further establish its validity.

Second, while the clusters did differ on education, data on the socioeconomic status of the stakeholders were not collected. Therefore, though the findings of this study suggest that stakeholders with higher levels of education expressed high play-learning beliefs, it is possible that stakeholders' level of income might also be related to their belief in play as a form of learning. This is because previous research (Miller 1989; Stipek et al. 1992) has demonstrated that, for example, parental goals for early years education differed by education and income, where parents with high education preferred teaching and learning approaches that emphasize play and parents with high status occupations (middle and high income) enrolled their children

in schools that emphasize play-based activities. Thus, future studies could examine these relations by using a number of indices for stakeholders' demographics, including education and socioeconomic status.

Importantly, while cluster analysis was considered useful in creating groups with similar characteristics and examining how these groups differed on the scale score, future work can be taken a step further using regression models that can enable us to predict stakeholders' play-learning beliefs. Using a regression model could offer the opportunity to identify variables that are most strongly associated with, or most predictive of, stakeholders' beliefs about play and learning. The outcome of such analyses would provide stronger evidence about variables that can be targeted to improve stakeholders' play-learning beliefs. For example, if education is found to be an important predicting factor in beliefs, then efforts by government and other organisations to improve play-beliefs would be focused on providing stakeholder education that emphasises the importance of play in the early years.

Another limitation is that, the sample, while appropriate for the statistical analyses conducted, was selected from only two out of the ten regions in Ghana and may not reflect characteristics of the general population of stakeholders in Ghana. Future research could be focused on expanding the coverage of the study to other regions to find out if it will yield similar or different results. By so doing, it would provide important understanding about early years stakeholders and their play-learning beliefs that could lead to drawing generalizable conclusions.

Moreover, while research shows that adults' level of education relate to their beliefs about the role of play in learning, little is known about why level of education makes a difference in their beliefs. Future studies could focus on understanding why level of education relates to play and learning beliefs.

Furthermore, this study examined play beliefs from the perspectives of stakeholders excluding the players themselves (children). Future research could focus on understanding play from the

perspective of children and examine whether children's constructed meanings of play and learning might be influenced by adults' beliefs.

Finally, without using concrete evidence, it will be difficult to convince stakeholders, particularly parents, that play has an important role in children's learning. Although evidence about play and children's learning exist, most of these studies are predominantly based on western children's play. Future studies therefore need to provide evidence-based solutions regarding the role of play in the early years classroom that is borne out of the Ghanaian socio-cultural context. Such studies should adopt randomized control trials and examine the impact of playful pedagogy on children's learning.

9.5 Concluding Reflections

This research had an enthusiastic start, with the zeal and quest to cover more areas than would have been possible within the PhD timeframe. While working with this enthusiasm, an initial topic was chosen without considering its connection with the research objectives and questions. However, with more discussions with my supervisor and advisor, a clearer picture of the study emerged. The research topic was refined to match the intended objectives and questions. The collection of data was quite challenging but informing, creating the opportunity to establish contacts through the Ministry of Education as well as travelling to parts of Ghana that I have never been to and to have a fair idea what early years education looks like beyond the urban city, where I was somewhat familiar with. Although the final outcome of the PhD (thesis) is very important, the learning process has been a very tremendous one. Nevertheless, if I were to repeat this study, there are two things I would have done differently. First, the selection of items for the revised version of the Early Years Play and Learning Perception Scale would have been based on both the statistical results and theoretical importance of the item, instead of just the former. Second, I would have analysed the quantitative data before collecting the qualitative data. By so doing, I would have been able to follow-up on the issue of participants' education.

Despite the above issues, the study has raised some critical questions regarding early years education in Ghana. It has demonstrated that the current state of play in early years education in Ghana needs to be reconceptualised and reenergized drawing on both local as well as global research on children's learning and development. The challenge is to define within the curricula framework what a child-centred classroom implies, as highlighted in the curriculum. Is it possible to integrate play in the curriculum and adopt a playful pedagogy in a sociocultural context that focuses so much on achieving results? What type of approach could be adopted? Is it one that would support children's play while developing their academic proficiencies as well as equipping them with skills needed to excel in a globalised world? Furthermore, it is clear that the early years sector needs quality improvement in the area of resources and the workforce. Lack of resources and qualified staff challenge the implementation of a pedagogy of play, even at the very minimal. It seems critical to adopt urgent sustainable ways of resourcing early years classes and skill-up the early years workforce.

9.6 Summing Up

It is recognised that social and cultural norms influences beliefs about play and its role in children's education (Pramling-Samuelsson & Fleer, 2009). Thus, understanding the social and cultural dimensions of play has become an important part in the study of play. Though parents, teachers and head teachers are acknowledged to be important stakeholders in early years education, there is relatively little research on their views about the role of play in children's learning in Ghana. In this study, I have assessed the role and meaning of play in Ghanaian early years classrooms using both quantitative and qualitative data. In particular, the quantitative data (survey) highlighted the general perceptions of the stakeholders and offered cases for in-depth qualitative inquiry. The qualitative data complemented the quantitative data by bringing alive the voices of the stakeholders and interpreting what exists in practice. Whilst the survey showed that the stakeholders generally believe play as a way of learning, which suggests a belief that play should be a cultivated activity, the qualitative data revealed that in the minds of most

stakeholders, play is a break from learning, accepted rather than cultivated, serving as a way of releasing stress, boredom and fun. This belief did not differ in practice. This belief plays out from the cultural meanings attributed to the model of childhood, play and learning in Ghana.

The reading of play within the curriculum shows the very limited and narrow representation of play. As an institutional and policy document, it influences pedagogical decisions and strategies as well as how the classroom environment is designed. As the Ghanaian teacher is to work within the frame of the existing curriculum, this narrow view of play will persist unless a new curriculum that highlights the key role of play is developed. In the broader context of the literature, the study lends support to the view that play is socially and culturally constructed and is therefore dependent on the cultural decisions and values regarding its importance. It is therefore important that the issue of play, the cultural language and meaning surrounding play are taken into serious consideration, if play is to be a cultivated activity in children's education as the Ghana Education Service seeks to accomplish.

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APPENDICES

APPENDIX A

PARTICIPANT INFORMATION SHEET & CONSENT

You are invited to be in a research study of early years parents, teachers and head teachers' perceptions of play and learning. Please read this form before proceeding to complete the survey attached to this information sheet. I am most grateful for your time.

Background information

Thank you for choosing to participate in this survey on play and learning. This survey is being undertaken by Esinam Avornyo, a PhD student at the University of Cambridge in the United Kingdom with the supervision of Dr Sara Baker. The purpose of this study is to gain knowledge about parents, teachers and head teachers' views on the role of play in early years (specifically, nursery and kindergarten children) children's development and learning. The survey will take less than 10 minutes of your time to be completed and contains questions about yourself and your views on children's play and learning at school. There are no foreseeable risks involved in participating in this study. Your participation will help shed light on how early years stakeholders in Ghana consider play and its role in children's development and learning.

Your decision to participate is voluntary and you have the right to withdraw your participation from this study at any time. The information you provide will be confidential and the records of this study will be kept private. No identifiers will be linked to the information you provide, as the data will be reported as a whole. Thus, the anonymity of you and your school will be ensured. Only the researcher and her supervisor will have access to individual data. The results from this survey may be presented in educational settings, at professional conferences and may be published in professional journals.

If you have any questions, you may contact Esinam Avornyo at eaa46@cam.ac.uk or on 0560592257. This project has been reviewed and approved by the Psychology Ethics Approval Committee of the Faculty of Education, at the University of Cambridge.

Consent: I have read the above information and I understand what is being requested of me as a participant in this study. I freely agree to participate in this survey.

Signed: …… Date: ……

APPENDIX B

PARTICIPANT INFORMATION SHEET & CONSENT (TWI)

Y3ma wo akwaaba ba nhwehw3mu adesua a 3fa tete awofo), akyer3kyer3fo) ne sukuu mpanyinfo) adwenkyer3 a 3fa agor)die ne adesua ho. Mepawoky3w, kenkan saa krataa yi ansa na w'atoaso awie saa ns3mmisa a 3ka ns3mfua krataa yi ho no. Meda w'ase w) wommer3 a w'anya ama me.

Ns3mfua a 3fa w'ase ho

Meda w'ase. s3 w'agye atum s3 wo b3ka nhwehw3mu a 3fa agor)die ne adesua yi ho. Nipa a)rey3 saa nhwehw3mu yi y3 Esinam Avornyo a)retoa n'adesua so w) Kambrigy Suapong a 3w3 United Kingdom. Na nipa a)rehw3 ne so ama w'ay3 saa nhwehw3mu yi ne Dr. Sara Baker. Adesua yi botae ne s3 y3b3ny nimde3 afa awofo), akyer3kyer3fo) ne sukuu mpanyinfo) adwen a)w) fa dwumadie a mm)fra a)w) nursery ne kindergarten agor)die ho. Nhweh3mu yi b3gye wommer3 b3y3s3 sima edu ansa na yawie. Afe, ns3mmisa bi w)mu a 3fa woho ne w'adwen kyer3 a wow) fa mm)fra agor)die and adesua w) sukuumu ho. Y3nni)haw biara 3ba dwumadie a wode woho rehy3mu yi akyi. Woho a woderehy3 dwumadie yi mu no b3ma 3han bi aba a 3fa)kwan a tetefo) a Ghana hy3w)n nsa no de agor)die ne dwuma edi w) mm)fra nyini ne w)n adesua no fa so.

3nny3)hy3 s3 wo de woho b3hy3 dwumadie yi mu, ana afei wo w)ho kwan s3 eber3biara a wop3 no, wob3yi woho afiri dwumadie yi mu. Nnyiano biara a wob3ma no b3ka me ne won tam. Y3b3 kora nnyiano no nyinaa w) kokoamu. 3kwan biara nni h) a obi b3faso ahu nipa a)maa saa nyiano yi, 3firis3, y3b3ka nnyiano no nyinaa abom baako. Ne saa nti, y3b3 kata wo sukuu yi din so. Nipa)rey3 saa nhwehw3mu yi ne de3)rehw3 ne so no p3 na w)n nsa b3tumi aka ankora ankora nnyiano no. W)b3 dan de3 3b3firi nhwehw3mu yi mu aba no nyinaa adi w) beay3 a w)sua ade3, animdefo) nhyiamu mu, na afei, ebi nso a y3de b3gu animdefo) nwoma mu.

S3 wow) ns3mmisa bia, wob3tumi a hwehw3 Esinam Avornyo w) eaa46@cam.ac.uk anaas3 0560592257. Ekuo a y3fr3 no Psychology Ethics Approval Committee a w)nhy3 Faculty of Education ase w) Kambrigy Suapong mu ahwehw3m agye dwumadie yi atum.

)p3ma: M'akenkan ns3mfua a 3w) soro no nyinaa na mate de3 worehwehw3 afiri me nky3n s3 obi a mede meho rehy3 adesua yi mu. W))p3so no, megye tum s3 me de meho b3hy3 nhwehw3mu yi mu.

M'atim: …… Dap3n: ……

APPENDIX C

SURVEY

Instructions: The following is a list of statements to find out your ideas about early years (nursery and kindergarten) children's play and learning. It is not a test, so there are no right or wrong answers. We just want to know what you think. Please indicate how much you disagree or agree with each statement by circling the number to the right of each statement that best describes your level of agreement: Strongly disagree (1); Disagree (2); Agree (3); Strongly agree (4)

Statements	**Strongly Disagree**	**Disagree**	**Agree**	**Strongly Agree**
1. Play is the best way children learn to understand the world around them	1	2	3	4
2. Play is an important activity for children to learn to be independent	1	2	3	4
3. The main purpose of play is for children to have fun	1	2	3	4
4. Play is a very good way children learn mathematical and scientific concepts	1	2	3	4
5. Children learn social skills primarily through play	1	2	3	4
6. Children should play mainly to release boredom	1	2	3	4
7. Play is an important activity for children to learn to be imaginative and creative	1	2	3	4
8. Play is an important activity for children to develop their cognitive abilities and thinking skills	1	2	3	4
9. The main purpose of play is to refresh children	1	2	3	4
10. Play is a very good way children develop and acquire academic skills such as pencil control and writing	1	2	3	4
11. Play is learning time for early years children	1	2	3	4
12. The main purpose of play is for children to get pleasure	1	2	3	4
13. Play is a very important way children learn to acquire creative problem-solving skills	1	2	3	4
14. Play is a very good way children develop their language skills and abilities	1	2	3	4
15. The main purpose of play is to make children happy	1	2	3	4
16. Play should be a major aspect of early years education	1	2	3	4

Personal Information

Please answer the following questions by selecting or providing the appropriate response.

Name of your child's school:……..

Name of your child:…….

Your Sex: Male …..... Female …… Your Age: …… Years

Religion: …… Ethnicity: ……

Relationship to child: Father …… Mother ……

Other (Please specify) ……

Your highest level of Education:

…… SHS

…… Certificate (Education)

……... Certificate (Other) Please specify……

……... Diploma (Education)

…… Diploma (Other) Please specify ……

…… University Degree (Education)

…… University Degree (Other) Please specify…….

…… Other (Please specify) ……

What is your profession?

…… Teacher/ Lecturer …… Government worker

…… Medical/ Healthcare ……Construction

…… Retail/ Trader ……Agriculture, Fishing

…… Business ……Lawyer

…… Other (Please specify) ……

Thank you!!!

APPENDIX D (SURVEY, TWI)

Nkyer3mu: Nea edidiso) yi y3 ns3m a y3de rehwehw3 w'adwen a wow) fa mm)fra nketewa (titiriw)w) nursery ne kindergarten) agor)die ne w)n adesua ho. 3nny3 ns)hw3 bi na y3re y3 wo, 3no nti, y3nni s3 w'ati anaas3 w'atwa. Y3p3s3 3hunu de3 wodwene fa ho. Mepawoky3w, twa numba a 3w) as3m a wopeneso anaas3 wommpeneso no ho kanko w) nifa fam h): Me mpeneso koraa (1); Me mpeneso (2); Me peneso (3); Me peneso paa (4)

Ns3m	**Me mpeneso kraa**	**Me mpeneso**	**Me peneso**	**Me peneso paa**
1. Agor)die paa ne)kwan a mm)fra faso de te ne3ma a atwa w)n ho ahyia no ase	1	2	3	4
2. Agor)die y3 dwumadie bi a 3hohia ma s3 mm)fra b3faso asua s3de3 w')b3de w)n ho	1	2	3	4
3. Agor)die ne botae3 titiri ne s3 mm)fra de b3gye w)n ani	1	2	3	4
4. Agodie y3)kwan pa mm)fra faso de sua ne3ma a 3w) akontabuo ne ab)di3 nyansap3mu	1	2	3	4
5. Mm)fra nam agor)die so sua s3de3 w)ne nipa tena	1	2	3	4
6. 3w)s3 mm)fra di agor) s3de3 3b3y3 a w)n ani nha	1	2	3	4
7. Agor)die y3 dwumadie bi 3hohia ma mm)fra s3 w)b3sua s3de3 y3de y3n adwene susu biribi na afei s3nea w)y3 ne3ma fofor)	1	2	3	4
8. Agor)die y3 dwumadie bi 3hohia na 3ma mm)fra s3 nyin w) s3nea w)de w)n adwen b3y3 adwuma ne)kwan a y3faso dwene	1	2	3	4
9. Agor)die ne botae3 titiri ne s3 3b3siesie mm)fra	1	2	3	4
10. Agor)die y3)kwan pa a mm)fra faso de nya adesua ho suahunu bi tes3 s3nea y3kura twer3duamu ne s3nea y3twer3	1	2	3	4
11. Agor)die y3 adesua mmer3 ma mm)fra a w)rehy3 sukuu ase	1	2	3	4
12. Agor)die ne botae3 titiri ne s3 mm)fra b3nya ahomka	1	2	3	4
13. Agor)die y3)kwanpa bi a mm)fra faso de sua)kwan sronko a)faso des))haw bi ano	1	2	3	4
14. Agor)die y3)kwan pa bi mm)fra faso de sua kasa	1	2	3	4
15. Agor)die ne botae3 titiri ne s3 3b3ma mm)fra ani agye	1	2	3	4
16. Agor)die y3 ade3 k3se3 a 3w)s3 3ka mm)fra sukuuk) ho	1	2	3	4

Woho as3m

Mepawoky3w yi anaas3 fa nnyiano a 3s3 yi ns3mmisa a 3didiso) yi ano .

Sukuu a w'ab)fra no k) no din:……..

W'ab)fra no din:…….

Nipa ko a wo y3: Barima ….....)baa …… Wo mfie: …… mfie

)som a wo w)mu: …… 3nt)n a wob): ……

Woy3 ab)fra no de3n?: Agya ……3na……

Fofr) (Mepawokyew kyer3mu) ……

Baabi w'ak) sukuu aduru:

…… Ntoaso) sukuu

…… Ab)din krataa (Adekyer3mu)

……... Ab)dinkrataa (Fofr)) Mepawokyew kyer3mu ……

……... Ab)din krataa kumaa (Adekyer3mu)

…… Ab)din krataa kumaa (Fofr)) Mepawokyew kyer3mu ……

…… Suap)nmu ab)din krataa (Adekyer3mu)

…… University Degree (Fofr)) Mepawokyew kyer3mu …….

…… Fofr) (Mepawokyew kyer3mu) ……

Adwuma b3n na woy3?

…… Kyer3kyer3ni/ Suaponmu)dekyer3ni …… Aban adwumay3ni

…… Ap)mden/ Ayarehw3 ……Aman mara kunini

……)det)nni/ Trader ……Kuay), wok)po

…… Dwadini ……Mmaranimni

…… Fofr) (Mepawokyew kyer3mu) ……

Meda wo ase!!!

APPENDIX E (INTERVIEW GUIDE)

Structure and Questions

1. Welcoming chat and thanking participants for coming along
2. Ensuring participants' understanding of:
    - The nature and purpose of the interview
    - The use of audio recording
    - How the data will be used
    - Participant's right to withdraw at any stage
    - Confidentiality and anonymity of their responses

3. Background Questions

- Tell me about your educational background

4. Questions for exploring views and perceptions on play and learning

- ❖ Definitions, types, range of children's play
    - What is the first impression when you hear the word "play"?
    - Tell me about play in the classroom
    - What do you think about play in the classroom?
    - Tell me about learning. What is it?
    - List children's typical play.
    - What is the role of early years education?
    - What do you think about play and learning? Is there any relationship between the two?

5. Functions or values of children's play
    - How do you think play affects children?
    - Tell me some kinds or types of children's play
    - What are the role or importance of the types of play in children's development and learning?
    - Does play have any long-term benefit for your child?
    - Based on what you said so far, how do you define play?

6. Roles in children's play
    - Based on discussions so far, do you think you have a role in children's play?
    - What are your roles in children's play?
    - In what ways would you support or participate in children's play

Encouraging prompts

- Can you give me an example of that?
- Can you tell me more about that/ Is that the same as what you said?

APPENDIX F

Participant Information Sheet & Consent (Qualitative Phase)

Thank you for your interest to participate in this research project. The project is being undertaken by Esinam Ami Avornyo, a PhD student at the University of Cambridge in the United Kingdom with the supervision of Sara Baker. Before you agree to participate, I would like to read this information to you.

This study is aimed at investing the role of play in Ghanaian early years classrooms. We would want to understand what your thoughts about play and its role in children's learning are. Thus, there are no right or wrong answers. The interviews will be recorded and transcribed. All responses provided will be solely used for academic purposes (writing my thesis and publication in journals).

The interview session will last between 25 to 35 minutes. The questions are framed to elicit responses about your educational background, knowledge and definition of play, value of play and your role in play. There are no foreseeable risks or discomfort for participating in this interview. The anonymity of your responses will be ensured- no form of identification is attached to the answers you provide because your name will not be used. You are therefore entreated to respond as objectively as possible. Your participation in this research is voluntary and you may decline participation or may discontinue participation at any time.

CONSENT

I have understood the information provided and I voluntarily agree:

To be interviewed and that my responses should be recorded

That direct quotes from the interview should be presented in the writing of the findings

Signed ……. Date: …….

APPENDIX G

Participant Information Sheet & Consent (Qualitative Phase, Twi)

Ns3mmisa-anoyifo) ns3mfua krataa

Meda w'ase w))p3 a w'anya w) dwumadie wei mu. Saa dwumadie wei y3 dwumadie a Esinam Ami Avornyo a)retoa n'adesua so w) Kambrigy Suapon a 3w) UK manmu na)rey3. Na Opanin a)da dwumadie yi ano y3 Sara Baker. Ansana wo b3pene so s3 wode woho b3hy3 dwumadie yi mu no, mep3 s3 me kenkan ns3m yi kyer3 wo.

Dwumadie yi botae ne s3 y3b3 hwehw3 adwuma a agodie di w) Ghana asukuu dan mu. Y3p3s3 y3nya ntease3 wo s3nea wodwen fa m)fra agodie ne dwuma a 3di w) m)fra adesua mu. Ne saa nti, y3nni s3 w'ati anaa s3 w'atwa. De3 wob3ka biara no y3gye tum. Y3b3twe nk)m) yi agu afidie so na afei y'adaneno ak) ntwer3e3 mu. Nnyiano biara a wodeb3ma y3n no y3 ade3 a y3de b3boa adesua.

Nk)m)die yi b3di sima aduenu-num ne sima aduasa-num ntam. Ns3mmisa no y3 ns3mmisa y3de rehhwehw3 wo nyiano fa wo sukuu k) 3ne nimde3 a wow) fa agodie, agodie ho mfaso), ne dwumadie a wow) w) agodie mu. Y3nni)p3 biara s3 y3b3ma woho akyerewo 3nam nk)m) a y3reb3twetwe yi so daakye. Y3b3b) mm)den biara s3 y3mma nipa biara 3nnhu s3 3y3 wona wo maa y3n nnyiano yi 3firis3 y3mma wo mm) wo din nk)m)die yi mu. 3no nti, y3b3sr3 wo s3 wob3yi ns3mmisa no ano p3p33p3 s3nea wob3tumi biara. Woho a wode rehy3 dwumadie yi mu y3)p3so, 3no nti s3 wo mp3 s3 wode woho b3hy3 mu a, y3nhy3 wo. 3ber3 biara a wop3 s3 woyi woho firi dwumadie yi mu no, y3b3ma wok wan.

)p3ma mu ns3mmisa

M'ate ns3m no nyinaa ase na mepeneso s3 mede meho b3hy3 dwumadie yi mu a 3nny3)hy3so:

S3 meyi wo ns3mmisa no anon a afei w'atwe ago afidie so.

S3 wob3tumi atwer3 ns3m biara a m3ka w) nk)m)die yi mu no w) nhwehw3mu biara wo b3nya w) dwumadie yi mu.

APPENDIX H

Photograph consent form

Dear Parent,

My name is Esinam Avornyo, a PhD student at the University of Cambridge in the United Kingdom undertaking a research project with the supervision of Dr Sara Baker. The purpose of this study is to gain knowledge about parents, teachers and head teachers' views on the role of play in early years (specifically, nursery and kindergarten children) children's development and learning. As part of the project, I will be taking photographs of the children in their classrooms. These photographs will be presented in the writing of the findings, which will be presented at conferences and published in journal articles. If you would prefer for your child **NOT** be photographed, please return this form with your signature and your child's name. Thank you.

…….

(Child's name)

APPENDIX I

TRANSLATOR AGREEMENT

This agreement is entered into on 2017 between William Adu-Mensah (hereinafter the "Translator") and Esinam Avornyo (hereinafter the "Author"), concerning a three-stage transcription and translation of interview data (Ghanaian dialect – English – Ghanaian dialect).

The translator agrees to maintain complete confidentiality and treat information in the interview as privileged information, not to be communicated to a third party.

Translator's Signature	Author's Signature
……..	……

APPENDIX J

Efua's interview transcript – English translation (Case A, Rural Public Brong Ahafo)

Tell me about your educational background

I completed formal education at JHS 2.

What is your first impression about play?

Play is an activity done by a group of people, such as ampe, football.

What do you think about play in the classroom?

Partly, play is an opportunity for learning. But if he plays too much, he will easily forget what his teacher asks him to write or read. Play in the classroom is partly good and partly not good for learning. If he doesn't pay attention to what he is taught in classroom but sets his mind on play, it will not help him. He will not be knowledgeable. But if, let's say, the teacher prevents him from playing and asks him to learn, he will become knowledgeable.

How would you define learning?

Learning is moving forward. Getting to know something

Can you give me some examples of play?

Yes. Football, children pretending to cook

Do you think play has role for children? Why?

No, I don't think so. If my son plays for a long time it will not yield any benefit. For example, if he is allowed to play football for a long time and doesn't learn, it will yield nothing for him. These days, if you can even play ball and you are not educated it is of no use. He has to learn. Playing football keeps him healthy.

Is any relationship between play and learning?

They are not related. They are separate elements. We have to be able to separate play from learning. If you allow the child to play and you don't stop him, he has no idea that he has to stop playing and go and learn. If he plays for a while, he has to be stopped so he can go learn. This way, he knows that when a play for a while, I have to also go learn. The child thinks the playing will help him.

Can you give me an example of the play you are talking about? Playing football during break time. If he is playing the football and the teacher does not call him and friends back to the classroom, they can play from the time they came to school until school closes.

Can you give an example of learning: for example, if they did English in the morning, then after beak they will do maths. This is learning and it is helps the child. If you leave him to play, he will play because it is play.

Do you think play has any long-term value for children?

It will have no long-term benefit for the child. If it is about playing, then he can stay home and play. But it is important for him to go to school and learn something. So if you say he should

come to school and play then it will be no benefit. Play is home matters and school is for learning. If he plays his ability to become knowledgeable decreases.

How would you define play?

Play is something that keeps children healthy. It can also help them to develop their language

Do you think you have a role in your child's play?

Yes, I have a lot of roles. Ensure he does his homework before he can play. Whilst at home (before starting school), I have to play with him

APPENDIX K

Efua's interview transcript – Twi translation (Case A, Rural Public Brong Ahafo)

Ka biribi fa wo sukuuk) ho kyer3 me

Me k)) sukuu duruu JHS 2.

S3 y3ka agor)die a, 3de3 na edikan ba wo tirimu?

Agor) y3 dwumadie bi a nipakuo bi edi, ebi tes3 ampe, b))lob).

3de3n na wo w)ka fa sukuu danmu agor)die ho?

3fa baabi no, agor) y3 3kwan a y3faso sua ade3. Nanso, s3)di agor) ky3 bebree a, 3b3ma ne wer3 afi de3 ne teacher b3kas3)ntwer3 anaa)nkenkan. Agor) a y3di ne w) classroom no, 3fa baabi 3y3, ana 3fa baabi nso 3nny3. S3 w'ama n'adwene ank) de3 y33kyer3 no w) class no so na)ma n'adwene k) agor) no nkoaa so a, 3mmoa no.)nhunu ade3. Nanso, y3nfano s3, teacher no amma no anni agor) na)ma no sua ade3 deaa,)b3hunu ade3.

3de3n ne adesua?

Adesua ne s3 worek) w'anim. S3 worehunu biribi.

Agor)die no ebi ne de3n?

b))lob), s3)mo reb) nkuro.

Mfaso) b3n na wodwene s3 y3nya w) agor)die mu?

S3 meba b33ma di agor) ky3 a, 3nnfa mfaso) biara mma. 3bi tes3, s3 wogyae no ma no b) b))lo ky3 na s3 w'annsua ade3 a, 3nfa hwee mmr3 no. nansa yi, s3 wob3tumi ab) b))lo na s3 wo nk)) sukuu a, 3ho mma mfaso) biara. 3w)s3)sua ade3. S3 wob) b))lo a, 3ma ne ho y3den.

Ay)nkofa bi w) agor)die ne adesua mu anaa? Wob3tumi akyer3 ay)nkofa a 3w) w)n nt3m no akyer3 me anaa?

Agor) ne adesua 3nns3. Ne nyinaa s3 ade3 sronko. 3w)s3 y3te agor) ne adesua ntam. S3 woma ab)fra no di agor) na s3 w'amma no annyae a, adwene biara mma ne tirim s3 3w)s3)gyae agor) no na)k)sua ade3. S3)di agor) kakra a, 3w)s3 woma no gyae s3 3b3y3 a)b3sua ade3. 3ba no saa a,)b3hu s3, s3 me di agor) kakra a, 3w)s3 me gyae k) sua ade3. Ab)fra no de3)nim s3 agor) no na 3b3boa no.

S3 woreb) b))lo break time. S3)reb) b))lo na s3)kyer3kyer3ni no annfr3)ne ne namfo amma class a, w')b3tumi adi agor) firi ber3 a w')b3k) sukuu ak)si s3 w')b3p)n sukuu.

3bi tes3, s3 3bia w')y33 br)fokasa an)pa a, na s3 w')k) break ba a w')b3tumi ay3 nkonta. 3no ne adesua, ana 3boa ab)fra no. s3 wogyae no s3)ni agor) a,)b3di agor) saa 3firis3 w'anya agor) redi.

Agor)die w) daakye mfasode3 bi ma mm)fra anaa?

Agodie 3nnfa adepapabiara mma ab)fra no abrab)mu. S3 3y3 agodie dea a, 3ne3 anka)b3tumi atena fie adi agor). Nanso 3hohia s3)b3k) sukuu na w'ak)sua biribi. 3nti s3 woka s3)mera

sukuu 3m3di agor) dea a, 3ho mma mfaso) biara. Agor) y3 efie as3m, ana sukuu nso w)h)ma adesua. S3)di agor) a, akwannya a)w)s3)b3hunu ade3 no so b3te.

3de3n ne agodie?

Agodie y3 ade3 a 3ma mm)fra nya aho)den. 3b3tumi nso aboa ma w)n kasa atu mpon.

S3 3ba w'ab)fra no agor)die mu a, wodwene s3 wo w) dwumadie bi w)mu anaa?

Aane, mew) adwuma bebree. 3w)s3 mehw3 s3 w'ay3 ne homework ansa na w'ak)di agor). 3b3r3 a)w) fie a)nnhy33 sukuu ase no, 3w)s3 me ne no di agor).